# The Builder.

VOL. LXIX. NO. 2753. NOVEMBER 9 1895.

## ILLUSTRATIONS.

Design for a Public Library.—By Mr. Percy E. Newton ..... *Double-Page Photo-Litho.*
New Picture Gallery, 2, Holland Park-road, W.—Professor Aitchison, A R.A., Architect ..... *Double-Page Ink-Photo.*
Selected Design, Llandudno Municipal Buildings.—Mr. T. B. Silcock, Architect ..... *Double-Page Ink-Photo.*
Dominion House, Fenchurch-street, E.C. } Mr. Delissa Joseph, F.R.I.B.A., Architect ..... *Two Single-Page Photo-Litho's.*
West India House, Leadenhall-street, E.C. }

*Blocks in Text.*

Block Plans of Pre-Conquest Churches ..... Pages 326, 327
Plans, Design for a Public Library ..... Page 337
Plan, Llandudno Municipal Buildings ..... Page 337
Section, Design for a Public Library ..... Page 336

## CONTENTS.

Mr. Lethaby's Architectural Gospel ..... 325
Notes on Pre-Conquest Architecture in England.—IV. ..... 326
Notes ..... 328
The Royal Institute of British Architects ..... 329
Modern Building Design ..... 334
Sanitary Inspectors' Association ..... 335
The Proposed Builders' Clerks' Institution ..... 335
Engineering Societies ..... 335
Design for a Public Library ..... 336
Picture Gallery, 2, Holland Park-road ..... 336
Llandudno Municipal Buildings ..... 336
Two City Office Buildings ..... 336
Magazines and Reviews ..... 337
The London County Council ..... 338
Architectural Societies ..... 339
Reculver Church ..... 339
The New Artificial Stone ..... 339
Cholmondeley Grammar School ..... 339
Obituary ..... 339
General Building News ..... 339
Sanitary and Engineering News ..... 340
Foreign and Colonial ..... 341
Miscellaneous ..... 341
Capital and Labour ..... 342
Legal ..... 343
Meetings ..... 343
Recent Patents ..... 344
Some Recent Sales ..... 344
Prices Current of Materials ..... 345
Tenders ..... 345

### *Mr. Lethaby's Architectural Gospel.*

THE two lectures on "Modern Building Design," delivered on the two previous Saturday afternoons in a small room in the corner of Bolt-court, will probably leave their mark behind them. Mr. Lethaby has more than one claim to serious attention. He is a beautiful draughtsman and a fine designer (though we presume that on his own principles he would repudiate these qualities), he has an intimate practical knowledge of work and materials, and he has the literary faculty which enables him to put what he has to say in a striking and picturesque manner. But beyond all this, Mr. Lethaby is manifestly in earnest. This is an age of humbug; and when we come across a man who speaks from his heart, and who thoroughly believes what he says, let us make much of him, and get all we can from him.

However much we may differ in some points from the view adopted in these two lectures, there is something eminently healthy and bracing in the stand which Mr. Lethaby makes against the pretence, the hollowness, and the merely trade conditions, by which the architectural and building practice of to-day are so largely and painfully characterised. That nothing worth calling "architecture" can come of erecting buildings with the main object of getting a money return for them as fast as possible, and getting out of a contractor the best show that can be made in work and materials for the least money, is what we have more than once said as plainly as possible in these pages, and it was with full sympathy that we listened to Mr. Lethaby's merciless sketch of the various grades of people who are nowadays interposed between the person who orders the building and the people who actually build it, down to the builders' foreman who might actually build if he were not almost entirely occupied with time-sheets and the effort to save a margin of profit for his employer. As Mr. Lethaby says, and as we have before said, the person called the builder frequently, in the present day, knows nothing about the building; he estimates on the quantities, and is merely a kind of agent for providing labour and materials. Every word that Mr. Lethaby said on this subject we endorse. The competition system of tendering is so vicious, so utterly subversive merely of sound and honest workmanship, to say nothing of architecture, that there must be a re-action against it before long; it is an absurdity that will over-reach itself.

The suggestion that we should study past styles of architecture not in regard to their external features but in regard to their methods of construction and the manner in which the constructional problems which their builders had to deal with were met, though it looks rather like turning architecture inside out to see what it is made of, certainly suggests a side of the study of ancient architecture which has been neglected, and is a hint which may well be borne in mind by architectural students. At the same time we cannot but see that not only is this constructive side not the whole, that in many cases it is not the most important element in ancient architecture. The constructional problems of the Greek temple were of the simplest kind, and are such as are found in many other buildings in other countries and periods; the qualities which differentiate Greek architecture are not those of construction but of design, of architectural treatment in the usually accepted sense of the word. Still, it is well to be reminded that we have hitherto studied ancient architecture too much from the outside. Also there is much wholesomeness in Mr. Lethaby's exhortation that we should just throw away the conventionally-accepted cornice mouldings, egg-and-tongue ornaments, and other items in the architectural property-shop, and commence to think out anew the treatment and expression of the constructive features of building. It may hardly be possible to follow such advice literally and entirely; we cannot altogether escape from the influence of details which have been used for many centuries; but to endeavour at all events to think out anew the expression of construction is a wholesome discipline to the mind, and may lead to more of new and living interest in architectural expression than we can realise till the experiment has been fairly tried.

That we should regard it as a main object to ensure that all building should be carried out in the best manner, rather than seek to dignify certain more expensive buildings with the title and rank of "architecture," is no doubt a most healthy view to propound, and strikes at the root of all the bad and jerry building of the day and of all time But it does not follow from that there may not be, as there always have been, buildings for special objects which aim at something far beyond what is merely good building; which are erected for the express object of producing grand and sumptuous architectural effect, and striking the imagination and the poetic sense; and this effect must be achieved by something beyond mere good construction, by that treatment of architectural "features" which Mr. Lethaby so much deprecates. What are the capitals, the special design of the columns &c., which give their special effect and expression to Greek temples, but architectural "features?" The columns are a necessary part of the construction, but the special treatment of them is not; it is done for architectural effect. And if we could see the ordinary houses in which the poorer classes at Athens lived at the same time that the temples were erected on the Acropolis, it is likely enough that we should find they were very poor structures, built in a cheap manner, though perhaps not as bad as the modern speculating builder's cottages. It may be doubted whether there ever was a time when the ordinary every-day building of a country was, as a rule, carried out as well as its larger architectural monuments. We see fine and strongly-built old cottages in this and other countries no doubt; but it is probably the best built examples which have survived; we do not know how much rubbishy building of this kind may have disappeared. Nevertheless, the plea that we should begin at the base and endeavour first to have all building good, sound, and well executed, is a noble one, and we can only thank Mr. Lethaby for so strongly insisting on it.

The idea of the harmony between architecture and nature, another point which Mr. Lethaby eloquently insists on, may in a certain sense be pressed too far. Certainly Versailles is not the highest type of architecture, but we do not know that the mere complaint that it is not in harmony with nature is a valid ground for condemning it. It does not appear to us that the Greek temples are much in harmony with nature; they are a separate creation of a highly artificialised type. English Gothic cathedrals are to a great extent in harmony with nature; French cathedrals (which many maintain to be the finer examples) are not; they are in harmony with the towns out of which they

rise, and the houses which crowd up to their bases and nestle among their buttresses. Versailles might have been carried out in a much higher and nobler type of architecture, and yet have stood entirely, and excusably, apart from nature. The whole domain was an artificially created "pleasaunce" on a great scale, and Louis XIV. selected a very unpromising area of flat land, and handed it over to le Nôtre to work on, with the express object of showing what art could do to beautify a place which had no natural attractions.

Mr. Lethaby's idea that we should regard nature from a "pattern" point of view no doubt suggests the only manner in which nature can be regarded as the originating suggestion for ornament. It is the way in which a decorative designer must regard nature if he wishes to take suggestions from it; in that relative sense it is correct; in a positive sense it is hardly the best way to look at nature, and we certainly cannot regard the sampler with the trees and stags worked on it as a reproduction or reminder of nature which is to be considered comparable with a painting of Turner's. And Mr. Lethaby himself seems to depart from this "pattern" view of nature in the passage near the end of his second lecture in which he says, speaking of the necessity of avoiding the too rigid application of geometry, "we are ready to admire this method of design in a tree, but repudiate it in building." That is Ruskin's old rhetorical fallacy of "the clerk of works' tree" in another form. A column and a tree are objects belonging to different categories, and the one cannot be a model for the other.

The statement that the best architecture has always been erected where there were no architects except foremen-masons, paid a little higher than the other workmen, will we think hardly bear investigation. It may be true of the Mediæval buildings; we more than doubt whether it is true of Greek and Roman buildings. A passage in the Pseudo-Platonic Dialogue Ερασται (B.C. 135), appears to offer indubitable evidence on this point in regard to Greece. "Ωσπερ 'εν τῇ τεκτονικῇ, . . . . τέκτονα μεν αν πρίαιο πέντε ἡ ἓξ μνῶν ἄκρον ἀρχιτεκτονα δὲ ουδ ἂν μυρίων δρακμῶν. Ὀλίγοι γε μὴν καὶ 'εν πᾶσι τοῖς Ἕλλησι γίγνονται. "As to building . . . . an ordinary builder (or building foreman) may be secured for five or six minæ (about 17*l.* to 22*l.*), but an architect not for less than ten thousand drachmæ (about 350*l.* roughly; or it may mean merely 'a very large sum'). But there are very few such architects in all Greece." No doubt Mr. Lethaby may quote the last sentence as to some extent in his favour; but the whole quotation at all events shows that architects were a class apart and were very highly paid. Vitruvius is evidence that architects were a recognised professional class in Rome; and Mr. Lethaby's own remarkable book on St. Sophia seems to us to show that the design of St. Sophia was the personal conception of Anthemius of Tralles.

We cannot pay much respect to the authorities cited by Mr. Lethaby in favour of his views as to the uninteresting character of architects' architecture. Mr. Mahaffy is an authority on Greek literature and social life, not on Greek art. M. Daudet is a brilliant and very cynical French novelist, who was invited by the editor of an architectural journal to express his views on architecture, and replied by some cynical remarks, as he would probably have replied on any other subject on which his opinion had been asked. Your French man of letters of to-day is nothing if not cynical. Mr. Morris is a pronounced Socialist, who regards everything to-day, architecture included, as rotten, and his gospel is a gospel of despair and negation. And as to Mr. Ruskin, in our opinion the citing of his views on architecture is a form of argument entirely *passé*. A very careful examination of the "Stones of Venice" and some others of his works on their recent re-issue convinced us that he has no fixed principles on architecture at all; that what he says on one page he will unsay on another; that he knows nothing about construction; that he is a blind guide in regard to architecture, excelling only in the faculty of uttering brilliant and stirring rhetorical sayings; and we think the world is beginning to find him out, or will do so before long.

In conclusion: it must not be forgotten that we are now in an entirely different position from that of the Mediæval builders; we have all architecture open to us by history and travel, and we cannot any longer work in the spontaneous and instinctive manner in which the builders of Mediæval cathedrals are said to have worked; we must exercise an intellectual choice. Even Mr. Lethaby's own suggestion that we should reduce building construction down to its simplest form, and develop it anew, implies the exercise of such a choice. And under such circumstances there must be one directing mind. Architecture has become, like engineering, a personal art; and the fact that the architect does not work with his own hands on the building is nothing to the purpose. Look at engineering; the greatest structure of the century is the Forth Bridge; does anyone suppose that the distinguished engineer under whom it was built did a stroke of hand-work on it himself, and yet does anyone question that the credit of the Forth Bridge is due, first and foremost, to Sir Benjamin Baker? And on what ground, then, is architecture to be regarded as merely the work of the artisans?

## NOTES ON PRE-CONQUEST ARCHITECTURE IN ENGLAND

By Professor Baldwin Brown.

IV.—*The Place of Saxon Structures in the General History of Mediæval Architecture.* Part II.—*Cruciform Plans and Towers.*

WE turn now to the consideration of the interesting group of Saxon cruciform churches already referred to, of which the most conspicuous member is St. Mary's, Dover Castle. This exhibits the plan given in fig. 11 (on p. 216 *ante*), where we see an aisleless nave, a square-ended chancel, transepts, and an imposing square tower over the crossing. A similar plan, so far as can be judged, was adopted at Stow in Lincolnshire, Norton, co. Durham, Stanton-Lacy, Shropshire, and Kepton, Derbyshire. Worth (fig. 10, *ibid.*), and Deerhurst, Gloucestershire, are, or were, cruciform churches with apsidal terminations, but without towers over the crossing. Most of these buildings present no special marks of great antiquity; but the oldest parts of Stow, the transepts, are believed by some of our best authorities to date from the early period of the bishopric of Lindsey, established in 678, and to show to this day on some of their stones marks of a burning by the Danes in the year 870. At St. Mary's, Dover Castle, materials, workmanship, and details all seem to point to a very early date of erection, and induced Canon Puckle, in his well-known monograph on the church—he calls it "a basilica-like pile"!—to ascribe it to the fourth century. Mr. Romilly Allen ("Monumental History," p. 184), classes it with Brixworth, and Sir Gilbert Scott accepts it as "one of our oldest remaining pre-Norman English churches" ("Lectures," II., p. 19), though further on (p. 44), he inclines to a later period. Most writers, including Bloxam ("Principles," 11th ed., I., p. 39), have agreed to this early ascription, which seems to have been acquiesced in at the Congress of the British Archæological Association at Dover in 1883 (*Journal*, Vol. XL., p. 235). On that occasion, however, Mr. J. T. Irvine expressed the opinion, derived from technical considerations, that the workmanship was not prior to the tenth century. This, as we shall see, is very likely to be true, but it is not really a question of technique but of general plan, and a consideration of this is quite sufficient to remove the building at once out of all connexion with the fourth century, and to make more than doubtful its ascription to the seventh, when, according to the most generally received opinion, it was constructed under Eadbald, King of Kent, the son and successor of Augustine's convert, Ethelbehrt.

The truth is that a cruciform church with central tower, almost exactly conforming to the late Mediæval type familiar to us in Anglo-Norman architecture, would have been at either of these periods an architectural phenomenon, not perhaps impossible, but in the highest degree unlikely. We are so familiar with the form of the Latin cross as a normal plan for our churches that we are apt to forget that in early Christian and early Mediæval times any approach to it was quite exceptional, and that it only began to come into use as a recognised scheme subsequently to the Carolingian epoch.

Among those exceptional Early Christian buildings, which we have seen to be so important for the future of Western architecture, were certain cruciform monuments intended primarily for sepulchral chapels. The cross-shape had been used for tombs by the Romans, and it is to be found in the Christian catacombs. When Constantine erected in his new capital a sepulchre for the Imperial family he adopted the form of a cross, and dedicated the building in the name of the Apostles. Though Constantine's church has perished, an Apostles' Church, which seems to have been a copy of it, was erected at Milan at the close of the fourth century by St. Ambrose, and the plan of it has survived in the later Milanese structure of San Nazario Grande (fig. 22). The famous

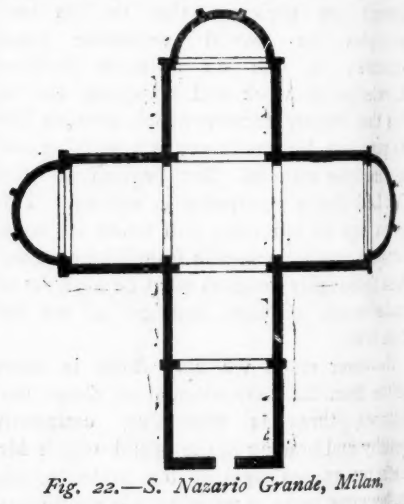


*Fig. 22.—S. Nazario Grande, Milan.*

tomb of Galla Placidia at Ravenna, of the fifth century, is an example on a smaller scale of the same form. With these buildings in existence it is conceivable that a Christian architect at any period might have boldly seized upon the scheme for the purposes of a church for Congregational use, and if it is claimed that this was the case in the seventh century at Dover and at Stow, it is impossible to deny the abstract possibility of such an achievement. That it is in the highest degree improbable the following considerations will show. The history of Mediæval architecture is quite silent as to any use of this form in other lands in the centuries from the sixth to the ninth. We know of no examples subsequent to the Early Christian epoch until after the time of Charles the Great, when the Romanesque period may be said to have opened. Is is true that the description *in modum crucis* is applied more than once to early churches among the Franks, but these appear to have been T-formed buildings in the shape of the *crux commissa*, a cross without a head, as in the original Church of St. Denis, erected by Dagobert about 628 A.D. (fig. 23). The *crux immissa*, or complete Latin cross, shows itself for the first time in the Middle Ages in the scheme of the church on the plan of St. Gall, dating

about 820 (fig. 24). The cruciform plan is there not complete, but, as it were, in process of formation; while it is more pronounced at Hersfeld (fig. 25), the plan

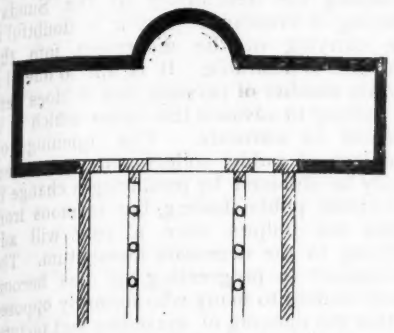


*Fig. 23.—St. Denys (circa 628).*

of which seems to date from about the middle of the ninth century. Even then the scheme is confined to the eastern part of the Carolingian realm, for the searching investigations of Dehio and von Bezold

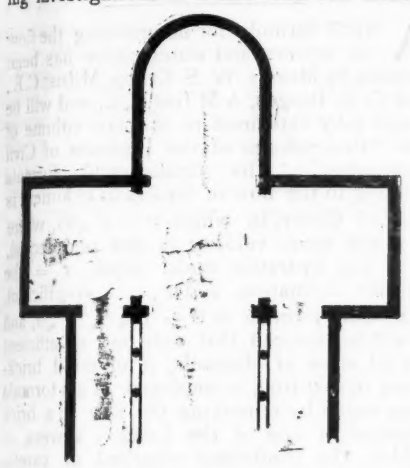


*Fig. 24.—St. Gall (circa 820).*

("Die Kirchliche Baukunst des Abendlandes") have failed to find any example in Gaul or Italy earlier than the eleventh century, when we come upon the pronounced example of the Cathedral of Pisa. Why it was that this

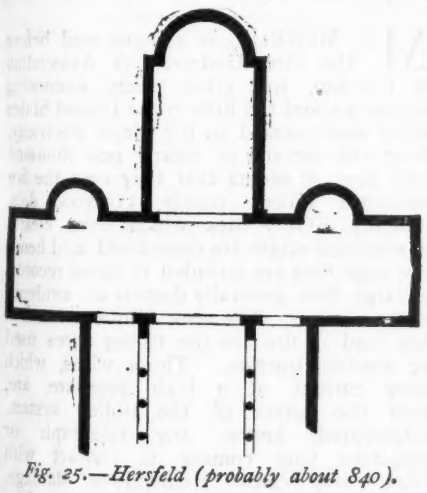


*Fig. 25.—Hersfeld (probably about 840).*

scheme, destined as it was to become practically universal in the later Mediæval epoch, should appear in early Christian times, but in the long intermediate interval should pass so completely out of use, we cannot tell. To claim that the Saxon churches we are concerned with fill up the void, is flattering to our national vanity; but on sober consideration it seems very improbable that a scheme in such startling contrast to the normal basilican plan should have been transported ready-made from Milan to England in the fourth or the seventh century, while it left no trace of its passage on the architecture of intermediate countries, such as Gaul, the Rhineland, or further Germany.

Another argument of a more technical kind leads in the same direction. The Early Christian cruciform monuments are formed on the model of the Greek Cross, that is to say, though the nave may have additional length, the transepts and choir and nave are of the same width, height, and general importance. Had the Saxon buildings in question been derived directly from these, the same relation of parts would appear in them also, whereas, as a fact, in the majority of our cruciform churches these ratios of size are curiously varied. The relation between the size of the square of the central tower and the width of the arms of the cross, which in the early Greek-Cross plans is always one of equality, varies in the Saxon examples, and will be referred to later on. The transepts at St. Mary's, Dover Castle, are notably inferior in height and width to the nave, while the chancel is intermediate. At Worth the same relation holds, but at Peterborough the transept is much wider than the chancel. These two, however, lacked the central tower. Repton, where the former existence of a tower is not quite certain, gives us a narrow chancel and wide nave, with transepts intermediate in size. On the other hand, at Stow and at Norton the four arms of the cross were almost exactly of the same dimensions, and at the latter place the marks of the old roofs on the four sides of the tower correspond in slope and elevation. The side of the tower in both cases is a little wider than the arm of the cross that abuts against it, while at Stanton Lacy, though the present tower is of much later date, these dimensions seem to have been the same.

These variations can be easily understood on the supposition that at the epoch when these churches were built architects were feeling their way towards a consistent cruciform scheme, but were still in the experimental stage. In Germany the Carolingian cruciform church at Hersfeld (fig. 25) has its transepts narrower than the nave, but a little later, as at Würzburg, the dimensions have become the same. Had the scheme been derived directly from the Greek cross of the Early Christian sepulchral chapel, such tentative procedure would be inexplicable. All the probabilities, therefore, seem to point towards a date in the 10th century, when we know that Repton and Peterborough were rebuilt, or the first half of the eleventh, when the more matured Stow was also reconstructed. It is unlikely that the earlier structures on these sites were cruciform, or that St. Mary's, Dover Castle, dates from any earlier epoch. As churches, however, of the tenth century they are still most remarkable edifices and deserve notice in any sketch of European architecture in general, as well as of that of our own country. To us they are specially interesting as exhibiting a scheme afterwards in great favour in the Anglo-Norman period, and as fixing at so early a period the central tower as a characteristic feature of English architecture.

The question of church towers in the Saxon period is an important one, and these prominent features in our early architecture cannot be properly studied except in relation to the general history of the tower in ecclesiastical architecture. Saxon towers are very numerous, and for the most part have a strong family likeness. They were probably erected at about the same period, and this period must have been one in which the tower had already come to take its place as a normal adjunct to the Christian church. The origin and primary purpose of the tower in Christian architecture are admittedly obscure, and all that we can say with any certainty is that the two earliest groups of towers are the campanili of Italy and the round towers of Ireland. The earliest dated tower is the round structure attached to the basilica of Sant Apollinare in Classe at Ravenna, erected in the years following A.D. 540. Italian church towers are, however, generally square in plan, and date from about the seventh century onwards. The Irish seem to belong to the ninth and tenth centuries, when they were erected as places of refuge and defence in the times of Danish inroad. The theory that the Saxon towers of England also belong to the Danish period, and were erected for the same purpose as the Irish, is contradicted by the fact that they present no sign of arrangements for the safety of inmates or for the warding off of a foe. One of the tall eleventh-century square towers in Normandy, that of Ver, has, like the Irish towers, its door at a considerable height above the ground, but all the Saxon towers open on the ground level, either into the church or on the exterior.

Except for furnishing this suggestion of an origin the Irish towers are of little use for the study of those in our own country, because, like the Italian, they are independent structures not in architectural connexion with the churches. In Saxon work we have to consider the relation of the tower to the main fabric, and this takes three forms. In some of the larger structures two towers flanked the entrance façade; in the case of cruciform churches a tower often occupied the central position over the intersection of nave and transepts; in simpler buildings a single tower was placed against the western wall of the nave. Sometimes, as at Ramsey in the tenth century, there was an entrance tower, and one also over the crossing. By the use of some ingenuity in conjecture all these uses of the tower may be derived from the central structures of early Christian times, and the following theory possesses a certain consistency and even elegance, though, like other theories of the kind, it must be accepted with reserve. This theory derives the central tower from the cupola or pavilion surmounting the inner space of circular or polygonal buildings like San Vitale at Ravenna; the twin towers *en façade* from the stair-turrets flanking the entrance fore-building at San Vitale and the Minster at Aachen; the single western tower from this fore-building or porch itself. The use of a cupola or pavilion to distinguish some special part of a church (not necessarily the crossing), occurs very early, as for example in the basilica erected by Perpetuus over the tomb of St. Martin at Tours, about 470 A.D. It is a familiar feature in the cruciform churches of the Romanesque Period in Lombardy and in Germany, and in the later Mediæval Epoch it develops in Germany into a regular tower, as at Bonn. What was the history of our own central towers we cannot tell, and it is doubtful whether they assumed their form in independence of the regular square towers, or whether the latter were first matured and the crossing-pavilion moulded in accordance with them. A feature in these towers, brought into notice by Mr. Hodges, seems to make for the latter alternative. He has pointed out (*The Reliquary*, Jan., 1894, p. 9) that at Norton and Stow, the external width of the limbs of the cross is not so great as that of the central tower, so that the corners of the tower are seen to rise from the ground and continue in an unbroken line from base to summit, the nave, transepts and choir abutting on but not wholly masking the sides of the tower; this arrangement gives a sort of independence to the tower, which suggests that it was in itself a well-understood architectural feature before it was employed in this particular connexion. Had the tower simply grown out of the cruciform scheme, the junction with each other of the four arms of the cross would have been the point accentuated, and the tower would have been used like the Lombard cupola to cover the space already marked by their meeting.

It is not a little surprising at first sight to find that characteristic Romanesque feature, the twin towers flanking an entrance façade, already in existence in the early Christian epoch. Yet this is what we find at San Vitale in the 6th century, and, copied from them, in Charles the Great's Minster at Aachen of 796 A.D. The flanking towers here, it is true, are only stair-turrets, but they needed only to be made more imposing, and used in their upper stories for the hanging of bells, to form the familiar Cluniac façade.

On the other hand, they might shrink instead of increasing, and become incorporated in the fore-building or porch, to the upper story of which they were intended to give access. In this way might be produced those imposing western adjuncts, inclosing within their walls the needful stairways, which form such pronounced features in many Westphalian and Saxon churches of early date, such as Paderborn.

According to the theory we are dealing with, the single square western tower was arrived at by a gradual shrinkage in plan, and elevation in height, of this many-storied porch. According to Dehio and von Bezold the single western tower is the latest form in which this feature shows itself in Mediæval architecture, but these well-equipped and conscientious investigators, like continental writers generally, know very little about the early buildings of our country, and a study of Saxon towers might lead them to reconsider some passages in their great work on the ecclesiastical architecture of the West. In Britain there are no indications of huge western adjuncts which might crystallise into towers, but there are, on the other hand, western porches of moderate elevation, which the examples at St. Pancras, Canterbury, and Monkwearmouth show to be among the features belonging to our very earliest churches. What was the primary purpose of these porches we do not know, but they were certainly incidentally used for purposes of sepulture. On the walls of such porches, as at Monkwearmouth and also at Corbridge, in Northumberland (C. C. Hodges in *The Reliquary*, January, 1893, p. 12), towers were at a later period erected, and the position of the tower at the entrance end of the church may therefore be due to the pre-existence of western porches, though these did not themselves actually turn into towers, as the theory demands.

To sum up the results of the foregoing discussion, it may safely be asserted that, so far as ground-plans are concerned (1) those plans which, to all appearance, are non-Roman, like those with the narrow naves and square-ended chancels, and (2) those which like the Basilican plans, correspond with Early Christian work elsewhere, are likely to be the oldest; while forms which, like the cruciform plan, are rather Mediæval than Roman, or, as is the case with the towers, do not occur at all in the earlier periods of Christian architecture, are almost necessarily of later date. Arguments as to date founded on details and technique will be considered in subsequent papers, but so far as the criteria hitherto set forth can be made to apply, we may find no reason to doubt that Silchester and St. Pancras are Romano-British, or that Brixworth and Reculver on the one hand, and Monkwearmouth, Escomb, and other churches of similar type on the other, may belong to the seventh or early part of the eighth century. As was pointed out some time ago by a distinguished authority on our early architecture, the late Mr. Loftus Brock, in the *Antiquary* for March, 1881, Saxon churches are not necessarily all of one period, and we must expect to find, beside those of more ancient date, examples comparatively modern. Among these are the cruciform churches, which must be regarded as important landmarks in that development of Romanesque architecture which begins with the time of Charles the Great. The towers are clearly not original elements in Saxon architecture, but it would be rash to fix a date earlier than which no tower can have been built. Most of the existing examples are generally, and no doubt rightly, referred to the early part of the eleventh century, but we know that Ramsey Abbey Church had a central and a western tower in the last half of the tenth.

THE STUDENTS' COLUMN.—Owing to pressure of other matter, we are compelled to hold over our usual "Student's Column" article until next week, when two instalments will be given

## NOTES.

AT the Hellenic Society on Monday Miss Harrison read a short paper, illustrated by plans handed round to the audience, on the subject of Dr. Dörpfeld's discoveries on the western slope of the Acropolis at Athens, and his theory as to the real position of the fountain of Kallirrhoë, subsequently called the Enneakrounos. The nature of these discoveries, and the new theory as to the site of Kallirrhoë, have been already fully laid before our readers.* In the discussion which followed the tendency was rather against the acceptance of Dr. Dörpfeld's new topography. Mr. Ernest Gardner, in the course of an interesting speech, pointed out that the "bridal bath," for which the sacred water of Kallirrhoë was in request, was a ceremony analogous to that performed by the bridegrooms who cut their hair and threw it on the Ilyssus stream; that the Ilyssus on this account received the epithet γαμόστολος, as signifying its connexion with marriage-rites, and therefore that the sacred fountain of Kallirrhoë would naturally be near the river; and he observed that the question was not so much whether we could make the description in Thucydides suit Dr. Dörpfeld's site, as whether anyone reading the passage in Thucydides without any commentary would naturally attach the meaning to it which Dr. Dörpfeld wished to give it. The undoubted fact that Kallirrhoë was near the temple of Dionysos Lenaios, called the Temple "in the marshes," raised another question in topography, most of the speakers urging (not unnaturally) that "the marshes" would have been more likely to exist on the lower level near the river than in the hollow near the Acropolis where Dr. Dörpfeld places the site. Mr. Myers, however, who treated the subject from a geological point of view, thought the lower ground had been so much altered and covered by *débris* that a further examination of it would be required to settle this, and he was of opinion that Dr. Dörpfeld's site had certainly been a very damp hollow, if not exactly "a marsh." The general opinion seemed to be that the phrase in Thucydides, πρός τοῦτο τό μέρος (see conclusion of the first article in our issue of September 7), could *not* bear the interpretation put on it by Dr. Dörpfeld, and that the ancient extension of the city was, according to the usual reading, southward and not westward of the Acropolis. Miss Harrison replied on some of the points raised. Although the discussion was in the main hostile to Dr. Dörpfeld's topography, about which we feel very doubtful, it must be admitted that he has scored two points: "Dionysos Lenaios" was Dionysos "of the wine-press" (ληνός), and he has found a wine-press †; there was an inscribed stele erected in the precinct of the temple, and he has found an altar-stone with the mortise in which a flat stele was evidently set. It will be at all events interesting to see what further evidence turns up, on the continuation of Dr. Dörpfeld's excavations.

AS we have called attention more than once to the delay in making any use of the waste space on the site of the old "Her Majesty's Opera," and the public injury done by leaving the site in this state, we are glad to hear that, after a great deal of negotiation, the site has been definitely acquired for the purpose of erecting a grand opera house, restaurant, shops, and club chambers. Plans approved by the promoters of this scheme have been prepared by Mr. Walter Emden, and the building operations will shortly be commenced. It is to be hoped that the result may be not only a well-planned theatre and convenient chambers, but that the exterior of the building may be architecturally worthy of such a fine and prominent site.

* See *Builder* of August 31 and September 7 of this year.

† See plan on page 164, *ante*.

A "MUSEUM" SUNDAY, that is a Sunday on which a number of private galleries and collections are thrown open to the public, is a reasonable way of emphasising the desirability of the Sunday opening of museums. But it is doubtful if the carrying of the movement into the churches is desirable. It is apt to offend a certain number of persons, and it does next to nothing to advance the cause which it is desired to advocate. The opening on Sundays of public collections must necessarily be obtained by producing a change in the entire public feeling, but sermons from some few pulpits once a year will add nothing to the necessary momentum. The movement is progressing, it has become more evident to many who formerly opposed it that the opening of museums and picture-galleries on Sundays affords better means of passing a harmless afternoon than do open public-houses, and that the pernicious influence of the latter must be combatted by some active means such as the opportunity for seeing works of art.

A NEW formula for determining the flow in sewers and water-mains has been devised by Messrs. W. S Crimp, M.Inst.C.E, and C. E. Bruges, A.M.Inst.C.E., and will be found fully explained in the last volume of the "Proceedings of the Institute of Civil Engineers." The fundamental formula relating to the flow of liquids in channels is that of Chezy, in which $v = c\sqrt{rs}$, where $v$ = the mean velocity in feet per second, $r$ = the hydraulic mean depth, $s$ = the surface inclination, and $c$ = a co-efficient. The new formula is $v = 124\sqrt[3]{r^2}\sqrt{s}$, and it will be noticed that only one co-efficient for all sizes of channels, if of good brick-work or cast-iron, is employed. This formula was tested by remarking the flow in a brick channel of one of the London sewers, in which the conditions admitted of careful observations being made, and it was shown to give very trustworthy results, erring, if at all, on the side of safety. Since it possesses the advantage of needing but one co-efficient for all sizes of channel, it is preferable for everyday use to expressions of a more complex character.

MR. MERRILL, in a paper read before the Fire Underwriters' Association at Chicago, has given some interesting statistics about the fires in the United States which were caused by the use of electricity. From the records of nearly one thousand such fires, it seems that they cost the fire insurance offices nearly 5,000,000 dols. annually. Only fires which were clearly of electrical origin are considered, and hence few large fires are included in these records, as large fires generally destroy all evidence of their origin. The most frequent cause of this kind of fire are the trolley wires used for electric traction. These wires, which carry current at a high pressure, are, from the nature of the trolley system, uninsulated, hence any telegraph or telephone wire coming in contact with them may cause tremendous damage. For instance, one of the fires was caused by the trolley-pole raising the trolley-wire too high, so that it came into contact with a telephone wire, the consequence being the immediate destruction of the telephone switchboard, and over half the telephones connected with the exchange. Many other "burn-outs" happened during snow-storms, when the telegraph-wires were broken or weighed down, so that they touched the trolley-wire. In one town alone, during a snow-storm which lasted for only a few hours, ten horses were killed and hundreds of telegraph, telephone, and fire-alarm instruments were destroyed. For these reasons, Mr. Merrill strongly urged every underwriter never to miss an opportunity of opposing overhead electrical work, and of pointing out the advantages of having the wires underground. He stated that in most towns it was easy to start an opposition to over-

head work, and that it was for the ultimate gain of all parties concerned. In country districts, where the expense would be prohibitive, stringent precautions must be enforced, guard-wires being affixed to the trolley in all cases, and protective devices installed. Next in point of danger to the trolley-wire came defective fittings, especially switches, cut-outs, ceiling-roses, &c., with wooden bases; happily these are now very rare in this country. Sparks from arc-lamps and wires coming into contact with gas or water-pipes have also caused fires. One case, due to the heat of an incandescent lamp, is worth mentioning. A visitor at a hotel failed to understand how the electric light in his bedroom was turned out. After trying various expedients, as a last resort he wrapped a towel round it. During the night the towel smouldered and caught fire, the visitor having a narrow escape, for when rescued by the firemen he was in an unconscious condition.

---

THE second of the course of lectures on building and sanitary construction now being given at the Carpenters' Hall, London Wall, was delivered on Wednesday by Professor H. Robinson, M.Inst.C.E. The subject of the lecture was "Sanitary Requirements," but the Professor dealt only with the removal of foul matter from a house by the water-carriage system, and in the course of a very instructive and able address he referred to that much-debated question of the proper flush for a water-closet. The lecturer mentioned that the effect of a flush depends very largely upon the construction of the closet, and that in some cases a two-gallon flush was sufficient; but he added that he preferred a three gallon for all forms of closets. He also stated that at the present time an inquiry is being held by the Local Government Board on the subject. The experiments carried out by the Sanitary Institute some time ago were, in some cases, very startling and appeared to be conclusive, and it is not surprising that that body recommended that a *minimum* of three gallons should be fixed, with a maximum of 3½ gallons. It is not only the cleansing of the closet basin and trap that is to be looked to, but also the cleansing of the house drain and the proper carriage of water to the sewer; and in view of the report of the Sanitary Institute and of expert opinion generally we shall be surprised if the result of the present inquiry does not effect an alteration in the law on the subject.

---

THE exhibition at Messrs. Tooth & Sons' galleries in the Haymarket is worth a visit if it were only to see again Mr. Orchardson's fine picture, "An Enigma," which some of our readers may remember at the Royal Academy three or four years ago. For colour, composition, finish of detail, and dramatic suggestiveness, it is one of the finest of the painter's works, and is like a novelette compressed into a single scene. Another picture of special interest is an evidently rather early work by Mr. H. W. B. Davis, "On the French Coast" (43), in a different style from his present work, and with a quantity of beautifully painted foreground detail. Among other works of interest are M. Hilda's "Invading the Sanctuary," a tiger prowling into a Hindu temple, Sir F. Leighton's "Sybil," Miss Clara Montalba's large picture of St. Mark's, exhibited some years ago at the Academy, M. Bouguereau's "The Bather," a fine half-length figure-study in his usual finished academic style, Mr. Johnson's "A Highland Sheepfold" &c. In the small room a collection of architectural paintings, chiefly of Venice, by M. F. del Campo, though very hard in effect, are remarkable for their brilliant realism, and should be of interest to architects.

---

A BERLIN architect, Herr Schwächter, has perpetrated a most extraordinary and unheard-of freak of vulgarity in connexion with a new building of which he is architect, the Emperor William Memorial Church, which was opened in September. On one of the bas-reliefs in the interior the following sentence was, under the architect's orders, chiselled on the stone — "What camels we have in the City Fathers of our capital: 2, 5, 1895: not even 15,000*l.*; how mean." The words refer to the fact that the Municipality had been asked to contribute to the building of the towers, and had politely declined to apply the ratepayers' money for that purpose. On finding that the local authorities and the respectable portion of the Press were very indignant at this most indecorous proceeding, the architect averred that it was "a joke." After much delay the words were obliterated under his supervision, but not till after the inauguration. It is to be hoped that the Berlin Architectural Society will do something to mark its opinion of the perpetrator of such a piece of vulgar insolence; but the author of it is an architect holding an important official position, and as such is protected by the ægis of Prussian officialdom. As a piece of bad taste, the action seems almost unique in the history of the architectural profession.

---

## THE ROYAL INSTITUTE OF BRITISH ARCHITECTS:

### PRESIDENT'S ADDRESS.

THE opening meeting of this Institute for the present session was held on Monday last, at 9, Conduit-street, Mr. F. C. Penrose, F.R.S. (President), in the chair.

The President, who was received with applause, delivered the following address:—

Since the delivery of my first Address from this Chair, just a year ago, we have recorded the loss by death of no fewer than seventeen Fellows, all men who have made some mark in the profession, while a few were highly distinguished—personal friends of long standing to many here and to myself. Ewan Christian, a predecessor of mine in the Chair of the Institute, had been a member fifty-five years, ten of which he passed as Associate. My friend St. Aubyn, who spent the last years of his life at Marazion, in sight of the famous St. Michael's Mount with which his family name was connected, was elected an Associate three years earlier, in 1837; and Henry Clutton, whom we have known as the Clutton of Hartswood, became an Associate in 1838. These three men, who have now joined the majority, may be said to have been identified with the Institute during the whole course of its corporate existence; and, certainly, we could wish for no worthier representatives than they showed themselves during that relatively long period. There is one other name I would mention, that of Paley, whose residence at Lancaster prevented his many friends in London from meeting him as often as they desired. We have also lost two of our Examiners, Ernest Turner and Harry Drinkwater, both of whom devoted themselves to the work—by no means light or easy—which devolves upon those members of the Board who set the papers and conduct the Examinations qualifying for candidature as Associate.

We have also to deplore the decease of seven Associates, one of whom, Gordon M. Hills, elected in 1858, was an archæologist of repute; while to another, Herbert Gribble, is due that important work of architecture, the Oratory at Brompton. From among the Hon. Associates, Alfred White, who had been a member from the foundation of the class, and who will be remembered as having at an earlier period taken an active part in the work of the Society of Antiquaries, is gone.

Dr. Reichensperger, of Cologne, who had been thirty-one years a Corresponding Member, and Richard Morris Hunt, of New York, who was the first citizen of the United States to receive the Royal Gold Medal, are both lost to us; and to lose men of the kind is a far greater loss than many of us, in the hurry of life, are perhaps aware, for, among our half-hundred of Correspondents, none were more friendly to this country and to British Architects than they were. Reichensperger, from his place in the German Parliament, invariably held up to notice and praised our free English custom and methods in architecture and the arts: he was an enthusiastic Goth, if I may be permitted the expression, and was one of the Jury in the great international competition for Lille Cathedral, high place in which was awarded to Englishmen. Hunt's speech in acknowledgment of the Queen's gift, made in this room little more than two years ago, is still fresh in our memory; and I may take this opportunity of stating that in the choice the Institute then made of Hunt as the representative architect of the United States, we chose the very man whom his architect fellow citizens would have chosen had they been asked, and whom they delighted to honour and see honoured.

I hope that the time spent over the mournful prologue with which I have been compelled to open my remarks will not be considered excessive, for I have much to say, which may be divided under two main heads: (1) The treatment of architects by the public, and, (2) The relations and services of the Institute to the profession and the public. Before, however, proceeding with these principal points of my address, I wish to be allowed to glance briefly at some of the events of the last twelve months which concern ourselves and our work.

With the current year there came into force a new Building Act for London, and a Tribunal of Appeal to which contested questions under the Act are submitted; and I venture to see in the establishment of the Tribunal the germ of powers very much higher and more extended than those yet accorded to the new Council of Three. One of my predecessors in this Chair, Mr. Waterhouse, said in 1889, just six years ago, that "A special Tribunal for the consideration and settlement of building cases" was required; and if we have not obtained quite all that he then wanted, we have at least the beginning of it. The current year also witnessed at its commencement an important development in our Examination system. From January 1, 1895, every fresh applicant for admission to the class of Associates has to ascend three stages of progression before he can pass as qualified for candidature. He has first to be admitted a probationer, then a student, then a candidate; and this requires a minimum period of five years to accomplish. True, there are special facilities for architects in practice and chief assistants to enter for the single final examination, but, for all youths entering the profession, the three grades must be successfully attained before an applicant can submit himself for election as Associate. The current year has also witnessed a revival of the Architects' Registration Bill, which was read a first time in the House of Commons that has recently passed away. Its attempted passage through Parliament was opposed by the Royal Institute of British Architects, involving an expenditure of labour and of money which the Institute is ill prepared to meet, and we were ably assisted in our opposition by the Architectural Association and the Art-Workers' Guild; but none of the Royal Academies of Art in the United Kingdom spent a farthing in defence of their architect-members menaced by the provisions of the Bill.

Early in January we were enabled, through the courtesy of the French Government and the kindness of the Institut de France—the attainment of whose centenary this year is an event of high importance, not only to Europe, but to the world at large, and one which evokes our heartiest congratulation—to exhibit a remarkable series of drawings of the Pantheon, the work of Monsieur Chedanne, Grand Prix de Rome. Later in the year it was our good fortune to welcome a large number of architects and engineers from Cologne and the Lower Rhine, who paid a week's visit to London. Both these events possess a value to us, as professional men, distinct from the purposes they may be said to serve, for they iniatiate association and establish ties between the architects of different countries, few, if any, of whom should be better acquainted with each other or respect each other more than those of Germany, France, and England.

Some effort also has been made during the last few months to arrange a scheme for the utilisation of our loan collection of educational books by members resident at a distance from London and by the allied societies. A catalogue of this collection has been published in the "Kalendar" issued to members last week, with the object partly of showing them how the collection is composed, and partly of inducing them to offer suggestions for its improvement, or even to contribute additional copies of works in constant demand by probationers and students. A Report on the subject will be submitted, I believe, in due course; and meanwhile I content myself with urging you to look carefully at the catalogue to which I refer, and to give the matter your serious consideration.

*a*

*Architects and the Public: Restricted Employment of the Architect.*

The more usual course on these occasions is for the President to address his brother architects, looking chiefly at their position with reference to their employers, the public—by this word meaning either private employers, public bodies, or associated committees. It may not, however, be disadvantageous for once in a way to look at the matter from a somewhat different point of view, and to consider what architects have a right to expect from the public, and especially in the case of public competitions, which are often very unsatisfactory, and to which I shall refer some length further on.

There seems to be an impression abroad, and one which is very unfavourable to our profession, that the services of an architect are not required unless a building is to be of an ornamental character, and that when an architect is called in t must necessarily be more costly than in those cases where he can be dispensed with. We all know that that is a great mistake; but it would be mutually advantageous to the public and ourselves if it were realised that the well-ordered plan elaborated by a skilful architect must necessarily be economical in many ways, and if some initial expense has to be incurred by his insisting on sufficient solidity and good material, it is very soon recouped, and over and over again saved in the repair bill. If the employer asks for a building without ornament, the true architect will make no objection: he will know how to produce a good and comely, or even stately, building without it.

One of the greatest satisfactions that an architect can feel is when the ultimate cost of a building is kept very closely to the first estimates. When this has not happened it may very frequently be traced to a want of proper confidence shown to the architect at the outset. The employer supposes that it will promote economy if he names at first a smaller amount than he is prepared to spend. To this the architect adapts his design, and the work is commenced; but as it proceeds the employer, or perhaps his wife, demands additional size or other modifications which can only be introduced at a greater cost than would have been the case if they could have been embodied in the original design. Something of this kind can also have arisen from the work having been commenced in too great a hurry by the urgency of the employer, owing to his ignorance of the time required for the due elaboration of the design. For, however long he may have been himself deliberating on the undertaking, almost as soon as the architect has been consulted the contract drawings are expected to be ready, and the work put in hand, before the plans have been maturely discussed between the employer and the architect. Much time and much subsequent worry might frequently have been avoided by a few weeks', or even days', free intercommunication before the design was put into execution.

We are all of us, however, I feel sure, familiar with cases where due consideration has been shown by the employer to the architect; but I have no occasion to enlarge upon these.

*Building Surveyors under Local Authorities.*

In communications between architects and the District Surveyors in London the latter are found almost invariably just and courteous; but I am informed that in many provincial centres the local Acts and by-laws (which had not during their formation the advantage which the London Building Act had, arising from the great pains which some of our members took in discussions with the London County Council, obtaining thereby important amendments) are administered under surveyors who have often had no architectural training whatever. Architects who may be practising in those places are frequently much harassed, and interfered with in an unwarrantable manner, even to the extent of the builder being ordered to alter parts of the work without any reference to the architect. According to the information I have received, public or municipal buildings seem to offer the most frequent occasions for interference with the legitimate position of architects.

Our brethren of the allied societies may feel assured that if there are any points connected with this matter on which they think the Institute can aid them, the Council will be very glad to receive communications on the subject.

*Competitions in General.*

The most unsatisfactory relationships between architects and their employers are apt to arise in the arrangements connected with architectural competitions. That the competing architects are not unfrequently themselves to blame for part of this has often, and not unjustly, been said both in this room and elsewhere; but much of it is caused by the promoters of competitions, who ought to consider more than they are apt to do what is due to the profession. This is, no doubt, often the result of ignorance on their part, and, if so, there is hope that it may be gradually improved. It is already a favourable sign that in very many recent competitions professional assessors have been appointed, but, but there has been in too many instances a want of proper consideration shown to the assessor's award.

On the subject of architectural competitions in general my immediate predecessor in this chair contributed a paper to the "Journal" in April, 1891, the arguments of which appear to me very hard to meet, showing that the principle of these competitions is altogether wrong, and beneficial neither to architects nor to the public. This statement, however, with respect to the former, perfectly true as it is, as I hope presently to show, may not be quite so convincing to all of us as to the public: because, whether rightly or wrongly, young aspiring architects probably do think that from competitions, whether they are successful or not, they get an opportunity of advertising their powers. But as regards the public, it appears to me that Mr. Macvicar Anderson's argument in the paper referred to is solid all round, namely, that a competition is not the way to get the best architectural result. It can hardly ever happen that any set of conditions and instructions issued by a committee can supply competing architects with all the information required for forming a successful plan at all comparable to the free intercourse of an appointed architect with his employers at the outset. At any rate, whenever a competitor has obtained such full information it must have been by means not equally accessible to other competitors, and therefore unfair to them; and there is little probability of a design based on such data being the best which would have been possible if all had been as fully instructed. Let us, however, suppose there has been no unfair running, that the architect has been appointed who has gained the award, and that he is really the most skilful of the number. When he becomes more fully acquainted with the circumstances of the problem he will almost certainly find that material alterations from the competition design ought to be made, and probably will have to be made; in which case it can hardly be otherwise than that he will be much biassed by the first design, and he would have produced a much better building if he had been appointed without a previous competition.

It seems to me quite clear that an architect's best work cannot be brought out by competition as we generally understand the word. He must, so to speak, be serving two masters—one that which is best in the abstract, and the other that which is most likely to please the promoters who often are very incompetent persons. It may be said by some that the spur of competition is useful in exciting genius; but a far healthier stimulant is the wish that a building which may have been entrusted to his hands shall redound to his credit. This is the true and only competition which ought to be encouraged.

*Competitions and Competitors.*

Then as to the bearing of the question with respect to our profession, my attention has been drawn by a friend to the case of a recent competition, that, namely, at West Ham.

"Here," he writes, "seventy-five designs were sent in for a building to cost £40,000. One man would get properly remunerated, two others get small inadequate premiums, and the remaining seventy-two will have lost all the time and money spent. At the ordinary professional charge for sketches only, viz., 1 per cent., the amount would have been £400 for each of the designs, so that at this rate the cost of professional labour has been nearly three-fourths of the cost of erecting the building. Surely this must be a great loss to the profession as a whole, and the great majority of the competitors might have been better employed and more profitably. Business men have frequently expressed the utmost astonishment at this wasteful system."

Another point which ought to be considered as exercising a very unfavourable effect upon architects who engage in competitions is the severe mental strain to which even a successful competitor must be subjected in compressing his work into too short a space of time. There is nothing in other liberal professions at all analogous to our architectural competitions, and they certainly do not raise architects in public estimation, particularly in the way in which they are so often conducted now. The practice has become so general that I cannot flatter myself it can be arrested; but it may be improved. In his excellent address recently given at Manchester, Mr. Holden, the President of our Allied Society, in referring to this very subject, points out the most effectual means, and concludes thus:—"The question is a very difficult one to deal with, especially so long as architects of position can be found ready and willing to enter into competitions on almost any terms. If leading architects would refuse to compete except on fair and proper conditions, there might be some chance of obtaining better conditions; but until this is done I really cannot see any way out of the difficulty."

Instead of resorting to competition, a far better plan for promoters would be to discuss among themselves and settle who the architect should be for any particular work. Committees of promoters who think they are securing for the subscribers whom they represent the best result by eliciting, as they seem to expect, happy inspirations from a number of different minds and choosing the best of them—which by no means follows as a matter of course—go a very wrong way to work. Again, if there be any occasions when competitions are more undesirable than others, it is in cases where adaptations are to be made to existing buildings.

I have thought it right thus to affirm my entire agreement with my predecessor in his views on the subject of competitions in general, in the hope that in some, however few, occasions it may be taken into consideration by promoters. Now I have to discuss some points in connexion with the system already become so fashionable, which will be applicable both to open competitions and to those that may be restricted to a limited number, looking at the matter as much as possible from outside the profession. One observation I would first make to competitors, and that is to urge them to take the advice given from this chair by Mr. Waterhouse in his address to Students in 1889, namely, that when unfair or obviously misleading conditions of competition are issued by a promoter, the duty owed to the profession is to make no response. In short, Answer him not.

*Competitions and their Promoters.*

Unfair conditions are not always—indeed, I should rather say are not generally—the outcome of unfair or ungenerous feeling on the part of promoters; for their often objectionable clauses competing architects are much to be blamed. At various times architects have competed when they ought to have declined, and thus led promoters to think that they will get a sufficient response under almost any circumstances. An example of the kind, embodied in an invitation to architects, accompanied by a proposed set of conditions, from which I select the clauses that bear upon the subject before us, has come before me, which, however, seems to be but a specimen of a class; but it is a class which I think must yield to improvement if architects will but make a proper stand against anything of the kind by refusing to compete. It will be observed that in these the authority of the assessor is reduced to the lowest possible degree. This was a competition for designs for enlarging existing buildings, and the conditions were virtually as follows:—

(1) The committee have appointed Mr. * * * to act as assessor to assist them in their selection.

(2) Block plan of present buildings can be seen by appointment.

(3) Drawings required.

(*a*) Block plan, with position of buildings, roofs, drainage, $\frac{1}{16}$ in. to the foot.

(*b*) Plans of each floor.

(*c*) Elevations and sections, $\frac{1}{8}$ in. to the foot.

(*d*) Plan of suggested alterations, adapting same for connexion and communication with proposed new buildings, and improvements of sanitary arrangements.

(4) Each to be accompanied by a complete specification and description of means of heating, lighting, ventilating, and draining.

(5) Any design will be excluded which in the opinion of the committee and the assessor does not conform to—

(*a*) If sent in after date mentioned.

(*b*) If it does not give the accommodation asked for.

(*c*) If the committee and assessor should determine that the probable cost of work carried out would exceed the limit laid down.

(6) The committee will award a premium of [namely, a sum not quite amounting to 1d. in the pound, reckoned by the limit of expenditure named in the conditions], subject to rule (5), to the author of the plans considered the most suitable; and upon such premiums being paid the plans shall become the absolute property of the committee.

(7) Should the committee employ the architect

receiving the premium to carry out his designs (with or without modification), such premium to merge in his commission.

(8) Accommodation required [a long list of desiderata].

(9) Committee reserve right to appoint quantity surveyor.

(10) The limit of expenditure.

(11) After award plans of unsuccessful competitors to be returned, carriage paid, but the committee will not be responsible for any loss or damage.

No lengthy comment is needed on the above. The committee under these conditions, by a majority of one, might, in consideration of the premium offered in Clause 6, impound the plans and put them in the hands of a clerk of works to execute!

In commenting in the *Builder* of the 17th ult. on a recent competition, the Editor calls attention to the absurdity of a somewhat favourite condition issued by promoters—viz., that the designs are to be accompanied by a tender from a responsible builder. How could a *bonâ-fide* tender be given unless the quantities were taken out! And we all know what a long operation that is—absolutely inconsistent with the circumstances of a competition. And then follows a condition which ought to have warned any reasonable-minded architect off the field—viz., that the committee reserve the right to retain and carry out at their own pleasure all or any parts of the premiated designs without any reference to the architect.

Surely in vain the net is spread in the sight of any bird, said the wisest of men—but he evidently had not reckoned for an architectural competition.

I am glad, however, to be able to bring before you another case, of which the preliminary proposals have lately been issued, and from which I extract some clauses forming an agreeable contrast with the last:—

(1.) The President of the R.I.B.A. to nominate an assessor.

(2.) The assessor shall draw up the conditions of the competion, and in giving his award shall state in writing his reasons for doing so. All the competition designs shall, with the consent of their authors, be publicly exhibited after the award has been given.

(3.) The design awarded the first place by the assessor shall be the design adopted unless it should be found that a majority of not less than three-fourths of the entire committee are in favour of any other of the competing designs, which in the latter case shall be adopted.

We are all, I believe, convinced that no response ought to be made to an invitation issued for any competition unless there be a professional assessor appointed; and it is self-evident that such asseesor ought to be a man of high standing, and free from any local interest. But, with this exception, rather different views appear to be held respecting the degree of authority with which he ought to be invested in regard to the appointment of the architect to carry out the works after he has given his award. There is one thing, however, of extreme importance, namely, that he should not be called in, as is too often the case, when a number of designs have been sent in in answer to the unassisted invitation of the promoters, but that he should himself take the leading part in the preparation of the conditions and instructions. When this is donc promoters may be saved from making many mistakes. A very misleading error they often make is to give out a statement of their desiderata, and proceed to state a limit of cost, which are frequently quite incompatible with each other. Hence arises a source of very great perplexity both to the competitors and to an assessor appointed after the designs have been sent in, the latter finding it impossible to adjust the two irreconcilable views. There is, however, an objection of some weight, though not comparable with the absence of professional direction, in the drawing up of conditions, that if the assessor is known beforehand—and it is hardly possible that in his conferences on the spot with the committee of promoters he should remain *incognito*—the competitors will be more or less influenced in their designs by the study of his known or supposed architectural bias; and this is perhaps the reason why the assessor has so often been only called in at the last moment, when all the mischief introduced by careless and misleading rules has been done. It is, however, a difficulty, which, when thought of sufficient consequence, could be avoided by various means obvious to those who have experience in such matters.

Returning to the question as to the amount of authority which ought to be given to an assessor, it certainly appears to me that he should not be merely allowed to recommend a certain course of action to the committee of promoters, but that his position should be made predominant. As, however, the promoters can hardly be expected entirely to give up their control of the decision, I gladly endorse, as the course which meets the view I had myself already formed upon it, the condition I have already quoted, that the assessor shall have the duty of nominating the architect, unless his selection shall be challenged by three-quarters of the whole committee; and I think that such a clause as this would satisfy our expectations, which several recent repudiations of the assessor's award have seriously disappointed. It has been suggested that the assessor's award should carry the appointment absolutely, unless some valid reason be forthcoming to the contrary, and that such validity should be decided by appeal to the President of the Institute. But it appears to me that promoters would be more likely to agree to the former rule, which would in almost every case exclude local favouritism.

The course which appears to me to be the most desirable, and which I am glad to find coincides with the opinion of several highly experienced assessors, forms one of the suggestions printed in our "Kalendar," namely:—"That the promoters should by advertisement invite architects willing to compete for the intended work to send in their names by a given day, with such other information as the candidate may think likely to advance his claim to be admitted to the competition. From these names the promoters, with the advice of the assessor or assessors, should select (*a*)" [and this I hold to be the better course] "an architect to carry out the work, or (*b*) a limited number to compete, and each competitor thus selected should receive a specified sum for the preparation of his design. The author of the design awarded in the first place should be employed to carry out the work"—and to this might be added a very desirable suggestion, that some proper remuneration should be given to the architect selected if the work should not be carried out under his superintendence within some reasonable time.

### *The Institute, the Profession, and the Public: The Development of Architectural Education.*

In the extremely able address that my friend, Mr. T. G. Jackson, A.R.A. (a name to which I greatly regret I cannot add the letters F.R.I.B.A.), gave at the opening of the Liverpool School of Architecture, and which has been printed in the "Journal," he says that throughout the land technical schools and institutes are rising. Nothing, indeed, can serve to encourage those who have laboured in the cause of education for architects and handicraftsmen more than the foundation of the Liverpool School, under the combined auspices of that city and of Victoria University; and I see no reason why, after efforts similar to those which have resulted in success at Liverpool, other important cities in the United Kingdom, such as Edinburgh, Dublin, Manchester, Bristol, Oxford, and Cambridge, should not found or develop a like school, and a like Professorial Chair of Architecture. I do not mention Glasgow because a Chair of Architecture is already in existence there. The Institute may well be proud of the remark made by Mr. Jackson above referred to, for the initiation of this gratifying development of architectural education, which is to be witnessed throughout the United Kingdom, is mainly due to us.

Let us go back together for a few years, even less than twenty years, and ask ourselves whether we are any the worse now for the change, if any, which has come over our art from this still-vexed matter of education; or, indeed, whether any change whatever has taken place which may be deemed detrimental to our art? What security had we, in the year 1875, that the young men whom we elected Associates of our body had received any, even the most superficial education, scholastic or technical; or that they were fitted, by nature and position, to exercise the functions of an architect? How was an outsider then to know, except by personal trial, whether any Associate R.I.B.A., whose reputation was not established, had or had not received any education in the art, science, business of architecture? All that we required in those days from a candidate for the Associateship was his nominrtion by three Fellows who knew him, and his ability to pay an entrance-fee and an annual subscription; with his acceptance of honourable obligations such as are now in vogue. Twenty years ago we were pointedly asked in this room by a visitor, What evidence was there that any man setting up as an architect had the smallest scientific knowledge, or even a knowledge of mechanics, or of the qualities of different materials, or in short of anything at all except the power of making a sketch which might satisfy ignorant employers, and plans and elevations from which builders would never hesitate to contract? The question was left unanswered at the time, and a year ago or so afterward, when we re-arranged our by-laws, one was added to the effect that after May, 1882, no one should be admitted to the class of Associates until he had undergone the test of a professional examination. At that time the Council were strengthened by the inclusion of most of the Past Presidents and Past Vice-Presidents, who gave not only advice but a great deal of assistance in the work of re-organisation; and I should be unjust to the memory of an able colleague, who occupied this chair with advantage to the Institute, were I to omit mention of the late Mr. Whichcord, whose energy and business capacities largely contributed to its success. Nor can I forget that the late George Edmund Street presided over the then newly-constituted Board of Examiners, and took an active part in the work which preceded the first obligatory examination held in March, 1882. The results of the subsequent thirteen years are visible in the establishment and development of schools, of studios, of classes of architecture, and the subsidiary sciences and arts.

One of our earliest efforts was to publish, in 1870, a list of books, which the Council recommended to professional students; and a revised list, slightly modified in form, was published in the "Journal of Proceedings" of 1882-83. This afterwards appeared in the first issue of the "Kalendar" in 1885, and in a revised form has been annually published therein. About the same period communications were addressed on this subject to the chief provincial centres, and we were soon gratified to learn that some of the free public libraries, notably those of Liverpool and Manchester, had acquired the books thus recommended, and that students in those centres preparing for our examination could find there, ready to hand, some, at least, of the means of education. In 1887 one of my predecessors in this chair, the late Mr. I'Anson, addressed a letter to each Fellow and Associate, calling attention to the views he had expressed in his Presidential Address of that year on the subject of education generally, and stating that the future prosperity and influence of the Institute, and its position as a representative body must depend on the continued and increasing accession of the younger members to the class of Associates. He therefore urged that the direct personal influence of the elder members was necessary to guide the studies of their pupils, and assist them towards successfully undergoing the test of examination. The personal response given to this appeal at the time was most gratifying, and the results are even more so; for in October, 1887, the Associates numbered 681, of whom 122 had passed an examination prior to election, while at the present moment in November, 1895—only eight years later—they number 924, of whom 577 have entered after examination. There are, moreover, on our registers 142 students and 708 probationers, most of whom, in due course and in regular progression, will seek admission to the class of Associates.

Not the least potent factor in the spread and development of education has been the alliance of non-Metropolitan societies with the Institute. The main objects of this federation, which were stated at a meeting of the General Conference of Architects held in this room in May, 1887, were educational; and they were practically agreed to in the following March, the whole being confirmed in by-laws made under the provisions of the New Charter of 1887, and approved by the Privy Council in February, 1889. Nine societies were almost immediately taken into alliance, and at the present time they number fifteen at home and one in Australia. In 1893 a conference of these allied societies, then thirteen in number, was held at the University in Liverpool for the purpose of discussing a proposal to divide the United Kingdom into districts, of which the local societies then or hereafter allied to the Institute would be the respective centres. Among the results of the Conference which approved the proposal was a collective opinion, stated in the form of a resolution, that the establishment of such districts, each with its local allied centre, would enable arrangements to be made for extending throughout the country the advantages of our examinations, and promote a systematic organisation for educational purposes by utilising and developing the means of instruction available at or connected with such centres; and I am bound to add that the opinion then formed was far-seeing and correct.

Gentlemen, let me beg you to look into our

"Kalendar" for the Sessional year of 1892-93, in which the local "educational facilities" at each allied centre were given for the first time, and compare them with similar particulars in the "Kalendar" which has just reached your hands. This will assure you of the success that has attended the federation of the chief architectural bodies in the United Kingdom, as well as of the favourable influence that the establishment of an obligatory test, in 1882, has had on the education of architectural aspirants. Only three years ago, of the thirteen allied societies only that of Manchester possessed a lecturer in architecture, namely, Mr. Stelfox, the Ashpitel Prizeman of 1888, who conducted classes held by the Society on Monday evenings. That of Liverpool had a sketching club, and also classes of design and construction, with a special course of instruction, which, from the subjects it included, may be said to have been based on the programme of our examinations, and each subject was entrusted to a member of the Society who acted as lecturer and visitor. That of Birmingham had a class of construction held at Mr. Lloyd's office, and a class of design held at Mr. Hale's office, at both of which members of the Birmingham Association attended as visitors. That of Sheffield had classes for the study of specific subjects. The Societies at Leicester, Glasgow, Newcastle, Bristol, Nottingham, Dublin, Leeds, Exeter, Dundee, in 1893, had no educational courses of instruction; and, except in Glasgow, which possessed Mr. Gourlay, and Leeds, which possessed Mr. Howdill, there were no outside instructors in the various technical schools situated in those towns, nor had those institutions any course of instruction to which young men, hoping to become architects, could apply themselves with confidence.

But the progress which two years alone have wrought is remarkable. In our "Kalendar" recently issued it will be seen that every allied centre now possesses local educational facilities of some kind more or less complete, for architectural pupils. At Sheffield the Allied Society is connected with the School of Art, and at the technical school in that centre a course of instruction,* both elementary and advanced, is given. In Leicester the School of Art affords similar instruction, but as yet it has no professional instructor. In Manchester excellent opportunities are offered at the Municipal Technical School for instruction intended expressly for architects' pupils, improvers, and assistants preparing for our intermediate and final examinations; and at the Municipal School of Art in that city, the teaching staff of which includes Mr. Walter Crane;† while in the Manchester district there are classes of a similar character at Accrington, Bury, Blackburn, and Todmorden. In Glasgow the School of Art, with which the Glasgow Institute is closely identified, has courses of study arranged to include the subjects required for our intermediate and final examinations, with lectures on "Domestic Architecture" and "Design."‡ At the same allied centre the Glasgow and West of Scotland Technical College has organised some most complete courses of instruction under the direction of Professor Gourlay, and established a studio in which instruction is given by Mr. Lochhead, all of which have been fully described in our "Journal." In Newcastle-upon-Tyne three different institutions provide more or less instruction for architects' pupils. In Bristol the University College has a special educational course, adapted to architectural students. At Liverpool, the School of Architecture and Applied Arts, already referred to, and of which a full description is given in our "Journal," bids fair to make its scheme of instruction valuable and successful. At Birmingham a four years' course§ has been instituted; and at Leeds‖ instruction is given both at the School of Art and the School of Science and Technology. At Dundee there are two educational centres for young men preparing for our examinations. In Dublin, lectures are given, adapted to architects' pupils, at the Metropolitan School of Art,¶ at the Royal College of Science, and the Technical School; and at Nottingham, Exeter, York, and Cardiff there are local educational facilities in a more or less advanced stage of organisation. In the greater number of the above cases the lecturers are members of the Royal Institute of British Architects.

In fine, there are now chairs of architecture in Glasgow and Liverpool; and there are schools in which the elements of architecture are taught, forming or formed in most, if not all, of the districts into which we have divided the United Kingdom. Less than ten years ago hardly anything of the kind existed outside the Metropolis; and I who have taken only a very subordinate part in the work which has led to such satisfactory results venture to offer to those gentlemen who have mainly contributed to it my hearty congratulations.

The consistent course of study which for several years is looked for from those who undertake the very responsible business-habits and the literary and artistic knowledge involved in the practice of architecture, can hardly fail to have the effect of giving assurance to employers that in selecting an architect who has passed the ordeal they cannot be dealing with a charlatan. When regarded from the point of view of an aspirant or his parents, it is not denied that the required curriculum is intended to deter those whose abilities or capacity for hard work, which has been well defined as genius, do not lie in the direction of architecture; but to those who are not so disqualified it may prove a sufficient encouragement that many others, to whom they have no need to consider themselves inferior, have succeeded in passing the examinations.

Connected with this subject, there arises one point worthy of our consideration, and to which I feel I ought to refer—namely, the fact that the examinations are conducted by volunteers from amongst our numbers. It will not be thought surprising that this makes a considerable difficulty in keeping up the rota of examiners able and willing to undertake the work. Greatly indeed is the Institute indebted to those who have hitherto volunteered and still continue to do so; but it would facilitate the progress of the examinations very considerably if reasonable fees could be found for the examiners. The obstacle to this course lies mainly in the emptiness of the Institute's treasury, on which subject we lately had some important remarks from our auditors at the June business meeting. This emptiness of the treasury is engaging much attention from the council, and will not be lost sight of during its coming deliberations. I certainly feel that, should a sufficient improvement be the result, a moderate honorarium to the examiners would form a fitting application of part of it.

### *The Metrical System of Measurement.*

There is a matter very seriously affecting us whose daily duties lie with *pondere, numero, et mensura*, to which I think it may not be out of place for me to refer here. Not long since the Parliamentary Committee appointed to consider the national standards, &c., reported in favour of our adoption of the metric system. The change would no doubt introduce certain far from unmixed advantages, but it would be attended with enormous trouble not to be got over for many years. I venture to take this opportunity of bringing before this body—than which no other in the kingdom could be so well or practically able to appreciate it, and to which it would come home so intimately—an alternative which I cannot but think to be worthy of your consideration, in the hope that, if it should be well received here, some course founded upon similar ideas might make its way with the public. Instead of swallowing the metric system as a whole, what I here venture to recommend would, unless I greatly deceive myself, give to our commercial classes all that they could properly ask for, and to ourselves and the millions of the industrial classes all the advantages which could arise from the metric system, with less than one-tenth of the disturbance. The scheme involves a very insignificant change in our own reckonings of length, weight, and capacity to render the English standards easily commensurable with the French. I shall confine myself in what I say this evening to the measurements of length, as it is in these, it seems to me, that the change to the metric system is most to be deprecated; and suggest an alternative course by which we could obtain all the advantages of decimal notation without having to be saddled with the unwieldy mètre—a standard that has to be used fractionally in 999 cases out of the thousand which occur in daily use.

If our inch were reduced in length by about one hair's breadth, ten such inches would be twenty-five centimètres, a measure which is current in Italy, the palmo having been altered so as to agree with the quarter of the mètre. I would, therefore, recommend the word *palm* to be used to denote a length of ten such inches, thus serving for general use instead of the foot, and giving us at the same time a decimal notation, whilst all small dimensions could be reckoned, as now, in inches, halves, quarters, and eighths, or decimals of the inch at pleasure. In our dealings with those nations that have adopted the mètre, it would be only necessary to multiply or divide by four, as the case might be; that is, divide a measurement given in mètres and centimètres by four, to bring it to English palms and inches, or multiply English palms and inches by four, to bring them to the metrical scale. The slight alteration in the inch would not be felt in the dealing of our poorer classes, who are really the persons, both numerically and morally, to be most considered, and the complication introduced in commercial transactions would be very slight. Scientific calculators could readily take care of themselves. Weights and measures of capacity could be dealt with in an analogous manner by an almost insensible alteration of the ounce or the pound, the pint or the gallon, though the necessity in these, perhaps, would not be so great, because the kilogramme and litre are more reasonable standards than the mètre. The above is the broad outline of the scheme which I venture to bring before you, and it is not fitting that I should carry it any farther this evening. I can hardly think that the proposal has not been made by any other person, but I have not taken it from anybody else. I am not advocating change, though I confess to leaning towards decimal subdivision and to a desire for greater uniformity and simplicity, especially in our measures of capacity; but if a change is to come, I trust it will not be by the metric system adopted *en bloc*.

### *The Class of Fellows: an Appeal and a Suggestion.*

I began my perhaps too lengthy Address by a reference to the sad losses we had sustained in the ranks of members, and I propose now to conclude with some comments on the accessions made during the past twelve months, amounting to 5 Fellows, 67 Associates, 3 Hon. Associates, and 8 Hon. Corresponding Members. But, as a matter of fact, the class of Fellows has lost, not gained, strength. The Fellows, who last November numbered 617, at the present hour number 596, being a diminution of 21. The Associates, who a year ago were 872 in number, have, on the contrary, advanced to 924, being an increase of 52. In the course of the year only 4 out of the 872 have become Fellows. One gentleman who applied, and who had never been an Associate, was elected a Fellow at the final Business Meeting of the past Session. I have also ascertained that during the last two years (1893-94 and 1894-95) only four outsiders, if I may be allowed so to designate men previously outside our ranks, have been admitted to the class of Fellows, though during the two previous years fifty-six outsiders were admitted; during the two years before fifty outsiders were admitted; and during the antecedent two years (1887-88 and 1888-89) sixty-nine outsiders were admitted to the class of Fellows. These outsiders, as I venture to term them, were architects in the provinces, at foreign stations, in Australia and the Colonies, with a few Londoners—men who had had little, if any, opportunity when young of becoming Associates. If you will glance through the published lists you will find that they constitute an addition of strength to the Institute, and in many instances have added lustre to the roll of Fellows. Again, after a further dive into statistics, it will be found that of the thirty-four Fellows who sit on the present Council fourteen were outsiders; and yet were I to read out the names of the fourteen you would certainly agree with me in thinking that the Institute would have acted most unwisely and lost a great deal had it refused to admit them as Fellows simply because they had not previously been members in the class of Associates. On this point, which I know full well is a delicate one, much misapprehension seems to exist both within and outside the Institute. In the first place, there is an abnormal amount of hesitation on the part of Associates long in practice to proceed to the higher grade, though we all look for such a sign of movement in its ranks, and think that justice is not done to the high position the Royal Institute of British Architects is gradually acquiring, while little or no progress is made in such direction. In the second place, too many practising architects of repute, and even a few of well-earned distinction, form no part of the Institute, forgetful, as too many of them are, that their influence and usefulness would be infinitely greater

* By Mr. Wigfull [*A.*], Institute Medallist for 1894.
† Mr. Glazier [*A.*] is associated with Mr. Crane in this work.
‡ Mr. A. N. Paterson [*A.*] and Mr. W. J. Anderson [*A.*].
§ Mr. Bidlake [*A.*], Institute Medallist 1885, is the principal lecturer.
‖ Mr. Howdill [*A.*] continues his course of instruction.
¶ Mr. Cecil Orr [*A.*].

were they members of the corporate body, prepared to discuss important matters without bias, and to sink details of difference in a spirit of compromise, without which no corporation, community, state, nor government of any description has ever been successfully carried on.

Colleagues and gentlemen, I am about to make a suggestion which I hope may be received with favour, or at least with goodwill equal to that with which I venture to formulate it. This is the last occasion I shall ever deliver a Presidential Address from this chair. Though I am not the senior Fellow, yet I applied for admission to the Institute as an Associate in 1845, and this coming January I shall have been fifty years a member. On the strength of long acquaintance with those present here to-night, and with many others who, alas! are lost to us, I venture to make an appeal to the good feeling, the good sense of British architects everywhere, whether members of the Institute or not—whether they call themselves artists or professional men—to join hands and show a united front to all and any who would do them wrong, either from an artistic or a business point of view. Let us, on our part, convince the outside men—men of distinction, men of repute, who are not members of this body—how gladly we shall see the barriers removed which prevent them from joining us; and how willing we are to do whatever is reasonable to remove them. It is not for us to say that possibly some of the barriers alluded to may not be, to some extent at least, of our own raising; and it would be a very fit subject for our Council to discuss whether greater facilities could not be made for the admission of Fellows from among those whose career shows that they would be worthy members of our body, looking at architecture as a career in which the two essentials of art and business have to be represented, though not always in equal degrees of combination.

It has more than once occurred to me during my tenure of office, that one of the main reasons for the recent startling paucity of applicants for the Fellowship is the possibility that architects of mature age, men who have carried on extensive practice for the greater part of their lives—men whom we wish to see Fellows of the Institute, but who are not, and never have been, Associates—hesitate to take their chance of election at the hands of a body of electors, some of whom have only within recent years emerged from the position of pupils. It seems to me, for instance, somewhat sanguine to expect that men who are well-known members of the Royal Academy, of the Society of Antiquaries, and of other institutions in which for a long period they have been recognised as architects of repute and distinction, will consent to run the risks of an election dependent on the good- or ill-will or the prejudices of some thirteen or fourteen hundred gentlemen, the vast majority of whom are their juniors, and some of whom are not even in practice. I, therefore, though with great diffidence, and with all respect for the more youthful of my colleagues, urge the Institute to consider whether the power of admitting such men as those to whom I refer to the class of Fellows may not be confided solely to the controlling or governing body of the Institute, at least for the space of a year, or perhaps two years. The regulations which guide the Council in the admission of applicants for candidature as Fellows are sufficiently definite to constitute a check on any improper attempt to make such admissions too general or indiscriminate. The change may be effected by the suspension of certain by-laws; and though such suspension requires the sanction of the Privy Council, I feel convinced that when the facts are properly explained, their lordships will acquiesce in the petition which it would be our duty to address to them. What I propose has good precedents to support it. For instance, in my own club—the Athenæum—the committee have power to elect from time to time distinguished persons without submitting them to the chances of a ballot of the whole body of members; and this is held to be a great honour by the persons themselves, whiie it is certainly of high advantage to the club. The way being thus opened, I venture to think that the Council would have little difficulty in reaching the majority of those whom we consider should be part of the corporate body, and in effecting, to a great extent, the fusion with ourselves of many, especially in the provinces, who resent the position in which they are placed from no fault of their own; but who are, nevertheless, forced to remain outside the ranks of the Institute, to our mutual regret, and, perhaps, to the latent annoyance of both.

I trust that this suggestion, for which I hold myself solely responsible, may be deemed worthy of consideration by the Institute in general meeting, and that the result may prove as beneficial to all the parties concerned as I confidently expect.

---

Mr. Aston Webb proposed a hearty vote of thanks to the President for his address, containing, as it did, many suggestions, which, if adopted, would be to the great good of the Institute. In any notice of the address it would be impossible to pass over the reference that had been made to the late Mr. Ewan Christian, a man who was so noble, fearless, and true, that every one who had the advantage of even half-an-hour's conversation with him must have been the better for it. They all felt the great loss the Institute had sustained by the death of Mr. Christian. The principal part of the commencement of the address had been taken up with the subject of competitions. The President had pointed out that it was extremely difficult for the competitors, without consultation with the promoters, to ascertain what their requirements were; but most competitions were instituted by committees, and not by individuals who knew their requirements. Those who had much to do with committees would generally find that they did not themselves know their requirements. He was only speaking of competions on a large scale, because he believed that competitions for small buildings were a mistake; but where the conditions were intricate it was rather the architect's duty to suggest how the objects of the promoters should be met by the requirements of the building. With regard to material alterations in the design after it had been chosen, with all deference he had generally found that a competition design, which had been chosen by an able assessor, did not require any alteration. Drawings would have to be re-drawn, but he believed that the general lines did not require to be much reconsidered. As to the cost of the competition designs, the President had mentioned the case of a comparatively small building at West Ham, he believed, where he had estimated the cost of each design at 400*l*. He might say that, in conjunction with his friend, Mr. Bell, with whom he had had the pleasure of going into most of the large competitions, they had never spent anything like that amount on any competition design, and he certainly thought it would be a very bad day for the profession if money had to be spent to that extent in preparing competition designs. He believed it was the aim now of assessors in preparing conditions, and it should be their aim. to lessen the expenses of the work, which had to be met in preparing the designs for competition. As to improper conditions, they, of course, felt that very often conditions were sent out, which bore hardly and improperly on the architects, and under such circumstances the competitor should cease to compete, and take no part in the matter. On the other hand, however, he ventured to think that it did not altogether absolve the promoters of the competition from acting fairly, even if the competitors had, to some extent, placed themselves in their power by adopting those conditions. A recent case had arisen at Durham, where the conditions were certainly clearly stated, to the effect that they did not undertake to employ the successful architect, but he thought that hardly absolved them from doing so without showing some very good reasons for departing from that course. No doubt they were aware that the Council had written to the County Council of Durham, urging that, in fairness, the successful competitors should have the work, unless there was some good reason to the contrary. With regard to the selection of an architect by committees or promoters, he was not quite sure that a committee was more likely to select the better architect than they were to select the better design. As a rule, committees were totally ignorant of both architecture and design, and he was not sure that the one case would turn out better than the other. As to the power of the assessor to advise, he thought the Institute had always felt it was very difficult to ask a body of men to actually bind themselves by any award of a professional man. If a man went to a doctor, asked his advice, and was recommended some very stringent thing, the patient did not undertake to follow the advice, although it might have great weight with him. In the same way, if a client went to a lawyer, he might be advised to go to law, and probably would; but still the client would hold himself free to do so or not as he thought fit. If, then, the committee undertook to be advised by the professional assessor, it was almost as much as they could be expected to do. It had been laid at the door of the Institute that they had not done as much as they might have in the teaching of architecture, but he thought that the course they had taken had certainly given a stimulus to architectural education all over the country, and had given an indication to young men as to what they should learn. Unless architects learned when they were young, however artistic a young man might be, he would be working at a very great disadvantage. The Institute was, therefore, working with the aim of encouraging young men to know while they were young, so that when they grew older, they might not have to spend their time in acquiring elementary knowledge which they might have gained in their youth. They all regretted the paucity of new Fellows, and any suggestion by which that could be done away with would be most grateful. On the other hand, the Associates were increasing largely, which meant that new blood was coming into the Institute in large quantities. This must tell in time, and make the Institute perhaps even more vigorous than it had been in the past. He could not think that anybody would dissent from the suggestion to admit Fellows through the Council, and they were very much indebted to the President for suggesting such an admirable course. It would enable the Institute to honour those whom they might wish to honour, and it would be an honour to those who gave and to those who accepted it. The Institute had now been for more than sixty years endeavouring to do what it could. In the early times men like Sir Charles Barry and Professor Cockerell were actively engaged in it; in later days they had had Scott and Street and Burges, and men of that sort. At the present day they had many of the most distinguished architects helping them, and it could not be supposed that such men would spend their time if they did not think they were working for a worthy object. Their aim, however, could not be attained unless they had the assistance of nearly everyone, and he thought they had a right to ask them to come and help, and give them the opportunity of aiding those who were less fortunate than themselves. It was said that they were working in the interests of architects, and not in the interests of architecture, but surely this was the way in which the Institute could work in the interests of architecture, and in the way of improving design, and the Institute asked those architects who did not now help to assist by their presence in inspiring enthusiasm and love for their work in the young men, and so they would be doing a very great deal for architecture, and for that reason they were very much indebted to the President for the suggestion he had made.

Mr. W. D. Caröe, in seconding the vote of thanks to the President for his admirable address, said they were conscious of the long life and devotion he had given to the great cause of architectural scholarship—he might say of scholarly architecture—and for that devotion they and, he might say, the world were enduringly and gratefully indebted. If he might single out any one of the comments the President had made, it would be that in which they were told that the truer the architect the more readily he might dispense with mere ornament in producing his design, which might be even the statelier and the comelier for its very simplicity. He had been very interested by the President's admirable and practical reference to the partial adoption of the metric system in use on the Continent. Mechanical science had to some extent come to their aid, and it was a fact worth noting that the usual foreign scale adopted for drawings, viz., the 100th scale, was nearly allied to the English $\frac{1}{8}$th scale, which was virtually a 96th, and homogeneity was to be found beyond that point in the points of proportional instruments. He had followed what had been said as to the admission of Fellows by the Council, with a great deal of interest and pleasure. He did not know who had the privilege of being the youngest Fellow among them, but he felt if things went on as they had been going, that a time would come when that youngest Fellow, if he attained his full measure of lite, would remain the sole and only occupant of the chair, because he would be the only one whom the constitution of the Institute would allow to assume the purple. He could not but hope most heartily, therefore, that the general body of the members would acquiesce in the excellent suggestion made by the President.

The vote of thanks, on being put to the meeting, was carried by acclamation, the President briefly replying.

The President announced that the next meeting would take place on Monday, November 18, when Dr. Murray would read a paper on "The Sculptured Columns of the Temple of Diana at Ephesus"; previous to which the portrait of the

ex-President, Mr. Macvicar Anderson, would be formally presented to the Institute.

The proceedings then terminated.

## MODERN BUILDING DESIGN:

### POSITIVE CONDITIONS.

Mr. Lethaby said that he had endeavoured to show in his first lecture that the object to be aimed at was to improve the whole of building, not to exalt architects, who had probably only to deal with one-twentieth part of the building done in England. They must set themselves to stir the main body of workers to observation and experiment, to bring to their minds that there is a beautiful way of doing things, and that ornament was not a mere convention for squandering their labour. Education must therefore be based on constant and positive conditions of handiwork, utility, stability, and lastly on reverence for tradition and nature. Harmony with the rest of nature was the great rule of art; old building work was the crowning interest of landscape, while new towns blight and wither the country round them.* Nature furnished well-defined positive conditions which resulted in the differencing of local types when building was grown on the spot. Nature too was a vast reservoir of artistic ideas. They must throw away their burden of the thousand years dead palmettes, eggs and tongues, and mouldings, all the trappings of the styles improperly called "revived" when they were only "exhumed," and open their hearts to nature. Much more was involved in this than mere ornamentation, a work might have none of that and still be a part of nature, as some Cistercian abbey as simple as a barn, or the houses in any unimproved village in England. To see the real relation between nature and architectural design they must not look at nature in the landscape way, but at the actual facts of form, colour, and arrangement, the plan and pattern of things. In this way they could get fresh ideas for the modelling of forms, for agreeable textures and harmonious arrangements of colour. Talk about conventionalism and abstraction was often so much verbiage to cover the fact that we had forgotten that ornament should delight. The highest purpose of ornamentation in the whole of the arts was the gathering out of nature those particular facts and expressions best fitted for the matter in hand, leaving the water-colour painter's view to the water-colour painter, the botanist's view to the botanist.

He now passed to tradition as furnishing us with the second group of positive conditions, but the methods of studying old art must be reversed; instead of classifying their observations historically by time, place, and differences of style, they must consider them as constructive expedients to meet definite requirements. If they put away the styles, and regarded these old facts from their own proper standpoint, they would observe that the results were the direct outcome of the use of certain materials. They might get more from antiquity from such a method than by collecting sketches of features, and recombining them in make-believe Classic, Byzantine or Gothic buildings. A design of to-day in the Early English or Perpendicular style could not be made Gothic by writing on the plans in black letter. Out of the critical use of past tradition, they must build up a tradition of their own. The third corner stone in any positive foundation for a modern building was need or utility. It might be said that as soon as you put pencil to paper, some distinctive style would come in; but when the drawing had been made, could they not begin again, and hunt down every trick of style one at a time, engaged columns and pilasters, pedimented windows, &c. Having cleared out all these they could add another foot to the substance of their walls, or have a real hit at the imagination, in some little panel seriously attempted. They could line the front door with silver, if they must get rid of the money. The fourth set of conditions were those given by materials and the manner of working them. It was not by some impossible return to some art Eden, a general agreement on a "point of departure" and a "point of view," but by a common sense adaptation of means to ends that they would form a school of art. All finished forms and ornamentation were direct outcomes of the tools in the hands of a thinker. A potter, for instance, thought with his thumb; he might begin with an idea, but the pot insisted on developing in an unexpected way. If they got a designer to design a pot, he could only generalise a notion from a number of pots done by potters. So the learned architect, as far as the art of building goes, could only draw versions of the real work done by old masons and carpenters. "Man," the definition ran, "is an animal who uses tools." They might add, "a designer is a man who doesn't." What was true of ornament was just as true of detail. All building details should first be functional, and of the nature of bearing blocks, sheltering projections, and so on, and then each must be made suitable for its special purpose by special thought; it would thus become rightly original and organic work. They must cast aside all these cornices, entablatures, strings, and so on; there were surely infinite possibilities open to a rational growth of architecture, which should examine once again the first ground-work. All consideration of architectural results led us back to material, determining conditions. There was no such thing as agreeable abstract proportion in architecture. Proportion was a relation of parts conditioned by scale, materials, and habit. Simple ideas of proportion arose from convenience and stability, to which were added some associations gathered from nature, and the whole was confirmed by custom. The classic proportion for doors and windows was supposed to be a double square high. Now 3 ft. 6 in. wide and 7 ft. high was a convenient size, possibly it was the average size. If men had been accustomed to roll themselves through doors long-ways, they might depend upon it that true æsthetic proportions would have been the other way about.

Just as the architect had become a professional man, so was the builder developing into a financial agent; he was ceasing to build. The modern method of competition in tenders was entirely vicious, and could only lead to the ruin of good work. We could only get good building by a method which would allow the builder to build well, thus engaging his interest, ambition, and credit in his art. Under the competition system could we wonder that the old builder grandfather in "The Wrecker" complained of the lack of "originality" in builders. "Cement," he said, "would take much more sand than anybody supposed." On the competition system of tendering rested the absurdly inflated modern quantities. The waste round about building and the starvation at the centre was most grievous; the modern ideal was, instead of spending 100*l.* directly for one hundred pounds' worth of building, to get a colourable imitation for 75*l.*, spending 50*l.* in getting it done. First came the employer, who provided the capital; then the architect, who usually employed several journeymen architects; then the surveyor; then the contractor, a middleman employing sub-contractors. The clerk of works followed, and then sixth came the builder's foreman, generally a very skilful man, who had gained his place by natural selection; here at last we had a man who could build, but he was too busy with the time-sheets; then came the workmen. The money interest displaced every other duty, stratum after stratum, till the chief function of the builder's foreman was to look after the contractor's margin of profits. If we wanted sensible human building, the centre of the work should be approached from both sides. At the base of the pyramid stood the workmen already organised according to their crafts. Technical education had fairly set in, and it offered much towards a liberal craft education; and when an enthusiasm for good work, thus aroused, filtered through all the crafts, the Unions would, he hoped, become like the old Guilds, and quality of work would become an object, and the best workmen would be selected as being capable of being directors of building. To stimulate the workmen to the highest pitch of thought and energy positions of the widest trust must be open to them.

Artists in building must be trained in association with other artists and workers, and "design" must be thought about as the natural outcome of the work and not as something superadded to it. It was imperative that architecture, which was the proportionate association of crafts, should take its place in this comprehensive scheme of craft education, which might finally lead up to some central higher Polytechnic where the most skilful and thoughtful students would be brought together, but where the workshop should, as in engineering, be made the necessary basis and starting-point. A young architect who had spent a year in a school of masonry and a second year in the plastering and plumbing and wood-carving classes would thereafter stand in quite a different relation to material and so-called design.

Under such circumstances construction might be carried much further by an extended analysis of the possibilities open to it. What ways could be suggested of finishing a fireproof floor in a satisfactory way? How might the ordinary dirt-trap floor be improved out of existence, &c.? A thousand such problems might be attacked from the point of view of beautiful serviceableness. While going through such an intellectual training the student should be surrounded by examples, the loveliest that could be gathered, of casts, large photographs, finely-wrought drawings; but these should be for spiritual stimulus, fruits of a tree of life not to be plucked. The general power given by mathematical training of seeing in three dimensions, and the grasp of mechanical principles, would doubtless be of great service. He wished it were possible to throw the architect and the engineer more together, so that the architect might learn something of iron construction and the engineer might discover that scientific precision and refinement of adjustment, and not an overlay of base ornament, was the best "art" in engineering. Geometry should take a larger place in architectural training. During the period of organic architecture every expedient in the way of composite curves was open. We wanted to abandon the dreary semicircular and pointed arch theory of building. Vaulting and other matters should be investigated geometrically, not archæologically. But geometry of this kind must be used as a means of seeing only; no fine school of building had been governed by definable geometrical forms; there had always been a system of shading, as it were, one quantity into another by obvious or imperceptible modifications; axes were bent, upright lines were inclined, curvature took the place of straight lines, &c. We were ready to admire this method of design in a tree, but repudiated it in building; the T-square had got into our brains; an old building was modelled in the solid, not machine-set-out from ½-in. scale drawings. To build, not to trick out designs on paper, was the function of the architect. Books, and fine drawing, and the enthusiasm that came of the sight of lovely old monuments, were only means, and we could not be sure that they were even good means. What we wanted was good building; architecture, not designs; accomplishment, not projects; experiences, not hearsays. Design could not be taught, it could only be suggested as primarily the outcome of requirement, material, traditions, and pleasant workmanship under the inspiration of nature and tradition. These had been the conditions of every living school of architecture, and only by getting into relations with such ruling facts could we hope to build up an architecture at once scientific and beautiful—a Positive School of Architecture.

---

Mr. H. H. Statham, who was called upon by the Chairman, said he would be glad to propose a vote of thanks to Mr. Lethaby for his two very remarkable, eloquent, and interesting papers, and also to say with how much sympathy he had listened to a great deal in the spirit of them; although, in certain points, he was inclined to differ from him in opinion. Everybody would admire the earnestness and the soundness of Mr. Lethaby's views on architecture, and a great deal of what he had said, in his second lecture particularly, really seemed to point out a new system of studying ancient architecture: he referred to Mr. Lethaby's suggestion that we should study it constructionally, rather than as a matter of style—a suggestion which promised a new reading of the meaning of style. He (the speaker) agreed with much that had been said, in both lectures, as to the desirability of getting architects more closely into contact with practical work, but he could not altogether agree with Mr. Lethaby, for he thought that the conditions under which architecture was practised before the Renaissance had ceased since then and that they could not now, or ever again, be revived. Mr. Lethaby was of opinion that no really great work had ever been done where what we called an architect was the designer of a building. That might be true of the Middle Ages, but was it true of the Greeks? The names were known of architects who were distinctly stated to be the architects of several Greek temples, and the refinement of detail in setting out Greek temples was such that he did not think it could possibly have been done unless set out beforehand. Mr. Lethaby had said, and admirably said, a great deal about Wren, calling him "the last of the Romans"; but had he quite forgotten Sir Charles Barry? Barry was not so great a genius as Wren, but he was a genius of the same type, a born architect, with a faculty for seeing what treatment was fittest for each problem put before him. Let

* Is not this partly a question of size? Old towns were mostly small, and closely confined by definite walls; modern towns are large areas of country covered with buildings. Were the buildings all of the best quality, the result in this sense would be the same.—Ed.

them take the Houses of Parliament, and, admitting that the detail of that building was imitation Tudor (they must not forget that that style was imposed upon Barry by the Government), in his opinion, in plan and conception and grouping the Houses of Parliament was one of the finest and most thoroughly original architectural conceptions in the world, ancient or modern. And that building was carried out by a man who was a "professional" architect in the ordinary sense. But he principally differed from Mr. Lethaby in feeling that we were in a different position now to what existed before the Renaissance; history was open to us in books; we had the facilities of travel, and could see the great buildings of the world, and we could not work in that instinctive kind of way in which the Mediæval builders did. We could not, in fact, work in one style unconscious of the works of the past. It seemed to him that what we wanted was a few architects—that was to say, that for some reason or other the genius for architecture was rather quiescent at present. The effort to produce originality by going down to the workmen for it, he did not think would ever succeed in producing more originality than under the present system, though it might certainly lead to a new study of the practical details of building. In his opinion it was the object and joy of an architect to make his building a complete architectural thought. A man who had the good fortune to erect a large building should not rush after other large works, which he could not properly see to, but he should give his mind to that one, and should make every detail appear to belong to it and to no other. He (the speaker) did not see how that could be done under the system suggested by Mr. Lethaby. In his opinion the workman would always have to go to the master mind, and if he (the speaker) had the opportunity of carrying out a design for a large work, he would be glad to avail himself of the advantage of Mr. Lethaby's skilled workmen, but he would take very good care that they should carry out his details and not their own.

Mr. A. T. Bolton, in seconding the vote of thanks to Mr. Lethaby, said that while it might be agreed that the majority of every-day architectural features should be regarded as obsolete, and that it was desirable to obtain artistic effect be other means still, a point that was often overlooked was, that the pleasure of association derived from the use of the detail of old buildings could not be got rid of; thus it was natural that a cultivated person, whose interests were bound up with the Renaissance, for instance, should require in his building many such old architectural features. This applied still more closely in church architecture. In building a modern church, an architect could not forget the past history of a body which had existed for eighteen hundred years, and if they wanted to get what was called a church effect, they would find themselves compelled to make use of many of the old methods of expression. In his opinion, the present-day discussion about architect-workmen was the result of the unfortunate system of not employing resident architects, as was done in France, that being one of the best features of the French school. To be actually on a building, especially with some responsibility attached, was far superior to any series of Polytechnic classes.

The Chairman then put to the meeting the vote of thanks, which was carried unanimously.

Mr. Lethaby, in reply, said that what he had tried to show was that modern architectural genius had produced just—London. That was what it had produced, and the same methods would produce very much the same thing. Unless it was the outcome of experimental building a great architectural design was, he thought, essentially impossible; he could not conceive it: he knew nothing about it; but supposing it possible that such a design could be created by that possible architectural genius; if it were carried out by machinery would it give any delight? Certainly not. Would it if done by mechanical labour? No.

The meeting then terminated.

## SANITARY INSPECTORS' ASSOCIATION.

THE first meeting of the new session of this Association was held at Carpenters' Hall, London Wall, on Saturday last, the President, Sir B. W. Richardson, in the chair. After the formal business, the Chairman of Council, Mr. H. Thomas, delivered the annual address, which dealt with most of the leading sanitary questions of the day. He would be delighted, he said, to see every city, town, and parish in the kingdom following the example of Liverpool in providing free baths for the poor, and he pointed to the example of the "Guinness' Trust," which was making provision in all their new buildings to give every tenant an opportunity of getting at least once a week a hot or cold bath, as a step in the right direction, which ought to be followed by all owners of model dwellings. Instead of the Coal and Wine Dues, which had, unfortunately for Metropolitan improvements, been unwisely abolished, he thought they should resort to the taxation of land values. In the Metropolis and in many provincial towns there were still large numbers of back to back houses where a proper provision of space for light and ventilation was impossible, and he thought the legislature should seriously consider the absolute necessity of giving to local authorities, not merely permissive, but compulsory power to acquire sites for the erection of suitable dwellings for the working classes. The London County Council was greatly responsible for the backward condition of London in this matter, through not being liberal enough in prescribing for air spaces surrounding buildings in the metropolis. The paper advocated the acquisition of common lodging-houses by municipal authorities, with a view to improvement in many of them, which were hot-beds of filth and disease, and sternly denounced the Salvation Army Shelters, where human beings were crowded together like beasts. The habitual over-crowding of railway-carriages at certain hours of the day called imperatively for improvement. Persons suffering from diphtheritic sore-throat and other communicable diseases were huddled together for long periods, compelled to inhale each other's breath in carriages which never appeared to be disinfected or properly cleansed. While provision had to be made for cleansing and disinfecting cattle-trucks no consideration was shown to human beings, the law appearing to be inoperative in their case. A liberal air-space in all public vehicles with efficient mechanical ventilation by suction-fans or other means ought to be provided by public enactment, and it should be made a punishable offence to use such a carriage a second day without previously cleansing and disinfecting it. Light railways should be provided, by which articles of food could be brought into London and valuable refuse be sent out to the farmers. Suggestions were made for the improvement of the deplorable conditions under which a large floating population working barges on the Thames are living; for the establishment of municipal markets in all the districts of the Metropolis; and for better provision for hop-pickers. In concluding the paper, Mr. Thomas congratulated the late Home Secretary (Mr. Asquith) on having passed through Parliament a grand piece of legislation in the new Factory and Workshops Act, which would come into operation on January 1 next. It gave sanitary inspectors power to deal with overcrowding; fixed the minimum air-space at 250 cubic feet per person by daylight, and 400 cubic feet by artificial light other than electric light; prohibited the making of wearing apparel in any house or building where a case of smallpox or scarlet fever existed, and compelled medical practitioners to notify such cases. In future, fire-escapes must be provided in factories employing a certain number of persons; and the responsibility of maintaining tenement factories in a proper sanitary condition will in future be thrown upon the owners. The same Act dealt with underground bakehouses, all such places not already in existence on January 1 being prohibited. The Act, he believed, would prove to be one of the most valuable enactments ever passed for the benefit of the toilers of this country.

A discussion followed in which the President, Mr. West (Walthamstow), Mr. Jones (Lambeth), Mr. Young (Battersea), Mr. Lightfoot (Chelsea), Mr. Jacklin (Maidstone), Mr. Dee (Westminster), Mr. H. Alexander (Shoreditch), and other members took part.

Sir Benjamin Richardson said he looked upon the work they were doing as just the kind of work he would have wished to see done at the commencement of his professional career, forty years ago, and he hoped they would go on increasing their influence in every possible way. He commended the paper as a very practical and suggestive one. In his early days he had been looked upon as a visionary when he predicted that the death-rate might, by proper attention to the laws of health, be reduced to 15 per 1,000; but men like Dr. Farr admitted to him privately that he had not overstated the number of diseases that might be entirely prevented, and that nothing but time was required to bring this about. They now saw how that prediction had been fulfilled. He agreed with nearly all that was said in the paper, but he did not admit the charge of indifference made against the medical men. He supported the views of the paper with regard to the question of free baths, the improvement of lodging-houses and of the means of locomotion. It was true that we made our own diseases. Improvements had certainly taken place, for they used to estimate that one doctor was required for every 900 of the population, now the estimate was one to every 1,600, but there should be not more than one doctor for every 3,000 of the population.

A cordial vote of thanks was given to Mr. Thomas, who in acknowledging it, replied to the various criticisms that had been offered.

## THE PROPOSED BUILDERS' CLERKS' INSTITUTION.

A MEETING of the proposed Builders' Clerks' Institution of Great Britain was held on the 2nd inst. at the Westminster Town Hall.

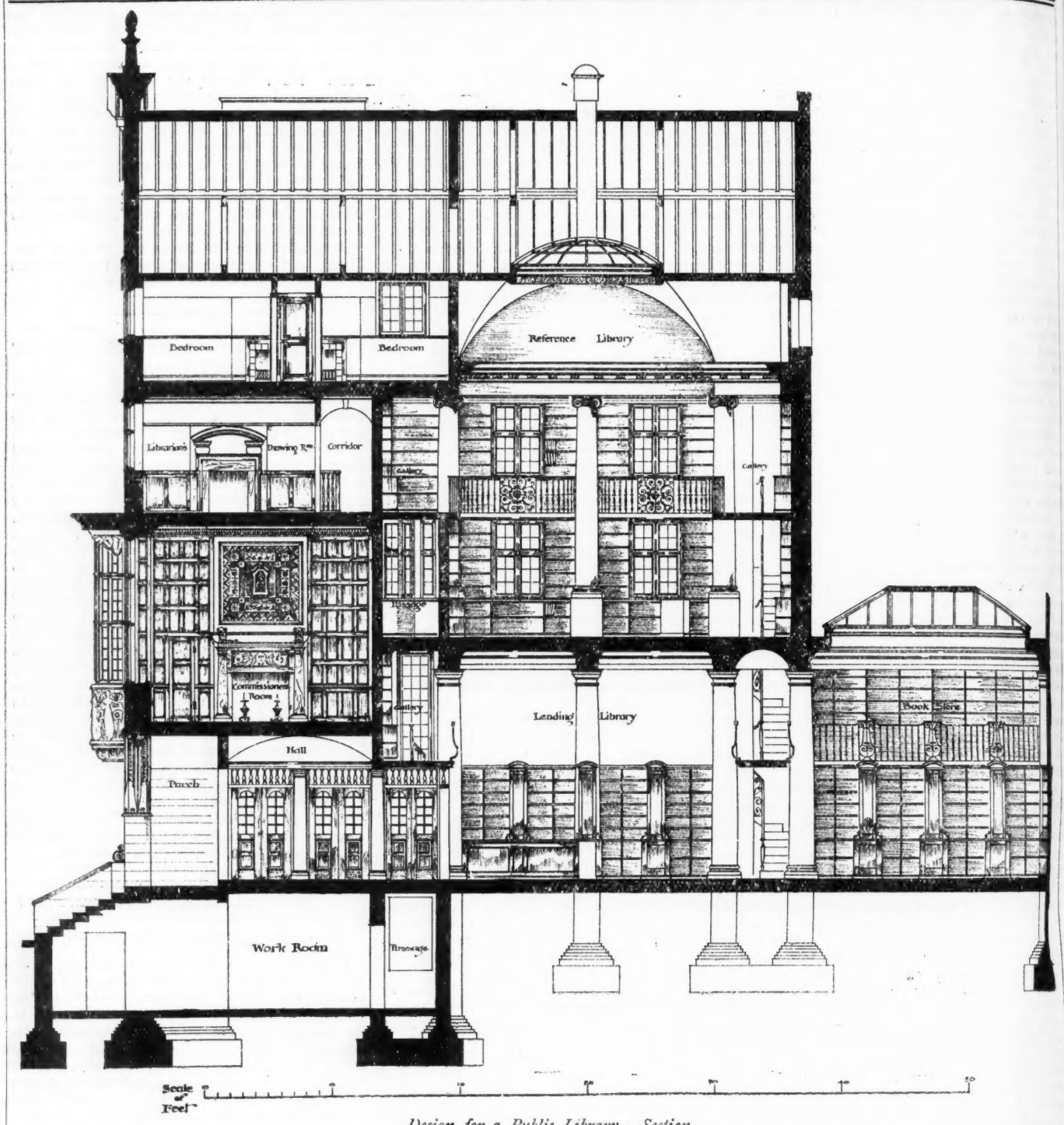
Mr. J. Pearse Bowditch, who presided, said that the objects of the proposed Institution were to form a bond of union between builders' clerks throughout the country; to establish a fund for temporary assistance to those out of employment, viz., a sick benefit and pension society; to open a register for employment, to which both employers and *employés* may have access; to form centres for gathering information as to the state of trade, with a view to advising builders' clerks contemplating a change; and to generally improve the status of clerks employed in the trade. A similar institution had been formed in Birmingham, which was making good progress, and the secretary, Mr. W. G. Letts, had written to him pointing out that no doubt they would form a London centre in affiliation with Birmingham, and that eventually London would become the headquarters or chief centre. In the course of his remarks Mr. Bowditch stated that fifty-five applications for membership had been received from various parts of the country.

After an informal discussion, a committee was formed to draw up a plan and circular of the proposed Institution, and soon after the meeting was adjourned.

## *ENGINEERING SOCIETIES.*

INSTITUTION OF JUNIOR ENGINEERS.—The inaugural meeting of the fifteenth session of the Institution of Junior Engineers was held on the 1st inst., at the Westminster Palace Hotel. In the absence abroad of the retiring President, Mr. Alexander Siemens, M.Inst.C.E., the chair was taken by Professor A. B. W. Kennedy, LL.D., F.R.S., past President. The institution premium of the past session having been presented to Mr. Ernest King and Mr. Kenneth Gray for their paper on "The Warming of Buildings by Hot Water," the President-elect, Mr. Archibald Denny, delivered his presidential address. It dealt principally with the education proper for a young engineer in shipbuilding and marine engineering.

LIVERPOOL ENGINEERING SOCIETY.—The opening meeting of this Society was held at the Royal Institution, on the 30th ult., when the inaugural address was delivered by the President, Mr. Arthur J. Maginnis, M.Inst.N.A. Mr. Maginnis said that it was with great pleasure he addressed them as President of their Society, which it had been his privilege to be a member of since its inception two decades ago, during which period many engineering works had been carried out both in the city and neighbourhood, not the least important being the removal of the bar of the Mersey, the making of the Mersey Tunnel and Overhead Railways, and the more recent connexions to the Riverside Station at the Landing Stage. In the United Kingdom a most interesting and important branch of engineering seemed now about to be revived in the shape of mechanically-propelled road vehicles, henceforth to be briefly described as "Autocars." The recent trials of these in France, together with the development of new motors, and the munificent offer of a prize of 1,000 guineas by the *Engineer* newspaper, had turned public attention to them, so that new fields for manufacture might be opened up, and another source of utility for the splendid roads of this country be extensively developed.




*Design for a Public Library.—Section.*

# Illustrations.

## DESIGN FOR A PUBLIC LIBRARY.

THE design here illustrated, by Mr. Percy E. Newton, is that for which the English Travelling Studentship of the Royal Academy was awarded last year; and the view of the façade was exhibited at the Royal Academy of the present year.

The conditions of the competition merely stated that the site was supposed to be surrounded by buildings on three sides, and was 100 ft. long by 60 ft. wide. An area of 20 ft. was to be left above the level of the first floor, and the building was not to exceed 80 ft. in height.

We give the plans of two floors and the section also, which speak for themselves; it is only necessary to add that a librarian's house of seven rooms is provided on the upper story.

## PICTURE GALLERY, 2, HOLLAND PARK-ROAD.

WHEN Sir Frederick Leighton's Arab Hall was built, a small room with a glass dome was made on the first floor over the corridor to the Arab Hall, for a painting-room, where a top light only was wanted. This room, however, ceased to be used when the glass studio was added.

Sir Frederick found he had no room to hang the pictures and sketches presented to him by such brother artists as Mr. G. F. Watts, Mr. Alma Tadema, Sir Edward Burne Jones, Mr. Sargent, Mr. Herkomer, Mr. Albert Moore, Mr. Clausen, and others; so another room was built over the library and adjacent to the old painting-room, the wall dividing them was removed, and its place supplied by black marble pilasters and monolithic columns of pavonazzetto with bases and carved capitals of black marble, an architrave of yellow Numidian marble, and a dolphin frieze. The new room was lit by a glass dome to match the other. A plain black marble chimney occupied the centre of the east side. The two rooms forming the picture gallery are hung with a warm faded leaf-green silk, to form a background for the pictures. When the door into the studio is opened the whole forms a pretty vista.

G. AITCHISON.

## LLANDUDNO MUNICIPAL BUILDINGS.

THIS design, which is by Mr. T. B. Silcock, of Bath, was placed first in the recent competition by the assessor Mr. T. M. Lockwood.

The requirements of the Council, as stated to the competitors, included three distinct departments—viz., (1) Council Chamber and Municipal Buildings; (2) a Public Hall, which might also be used as a Police-court; and (3) suites of private offices. It was necessary to design the building in such a way that any one of these three departments might be used without interfering with the others.

Reference to the plan will show that the Council Chamber is placed in the centre block, and one wing is devoted to the Municipal Offices; the other wing is to be utilised for private offices, while the Public Hall is placed at the rear of the centre block. There are separate entrances to each wing of the building, and screen-doors are provided for shutting them off from the centre portion.

The building is to be of Yorkshire and Penmaenmawr stone, lined with brick, and the roof will be covered with green slates.

The drawing from which the illustration is taken was exhibited at the last Royal Academy exhibition.

## TWO CITY OFFICE BUILDINGS:

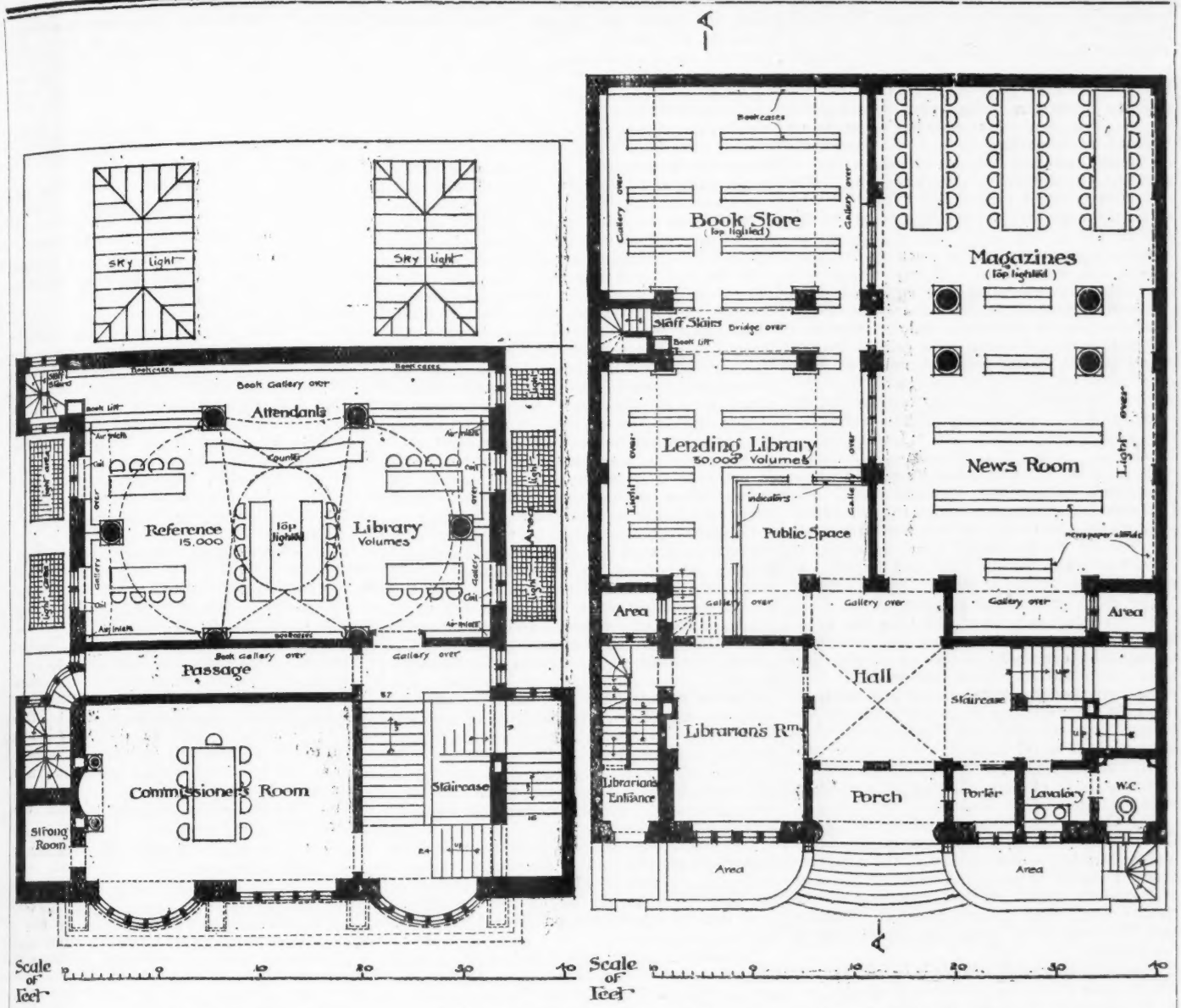
### DOMINION HOUSE, FENCHURCH-STREET.

THIS range of merchants' offices was completed a few months since, and occupies a position two doors from Billiter-street, and is close to Fenchurch-street Station. The area covered is about 6,400 ft., and the frontage to Fenchurch-street is about 46 ft., which frontage is carried out in Portland and Westwood stones. The basement is specially arranged as fireproof wine-cellars.

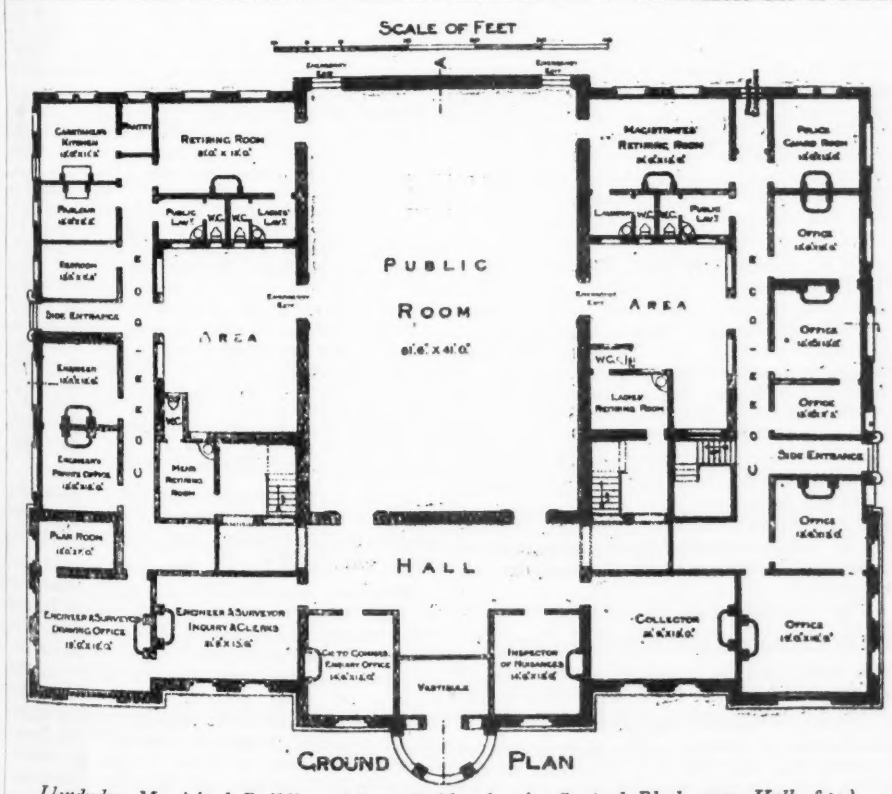
The property was built for Mr. W. Bridge by Messrs. John Allen & Sons, of Kilburn, for the sum of 18,000*l.*

### WEST INDIA HOUSE, LEADENHALL-STREET.

THIS block of offices has a frontage to Leadenhall-street of 58 ft., and return frontages to Sussex-place and Bury-street, and occupies an area of some 7,000 ft. The property is largely dominated by ancient lights, which have been




*(First Floor Plan.)* *Design for a Public Library.—Plans.* *(Ground Plan.)*




*Llandudno Municipal Buildings (Council Chamber in Central Block, over Hall, &c.).*

successfully dealt with by the architect without recourse to litigation. The principal elevation is carried out in Portland and Westwood stones and granite, and the return elevation and internal areas in white glazed bricks. A main corridor connects Leadenhall-street with Bury-street, and the upper floors are served by a stone-staircase and an hydraulic lift. The property has been so planned as to ensure uniformly good light to all parts, and has been so arranged as to give limited or extensive accommodation, as required, for the commercial and shipping firms for whom the building has been designed.

The building was formally opened in July, 1894, by Alderman and Sheriff Sir Joseph Dimsdale, who attended in State, and who, together with Mr. Alderman Pound, offered some favourable criticisms upon this and other City buildings of the architect.

The contract was carried out by Messrs. John Allen & Sons, of Kilburn, at the sum of 24,000*l.*

The architect for both the buildings is Mr. Delissa Joseph, of Basinghall-street.

## MAGAZINES AND REVIEWS.*

THE *Art Journal* devotes an article to the works of Mr. Lorimer, who is best known or best recollected by most of the public, probably, through his pretty and touching pictures, "The Eleventh Hour" and "Grandmother's Birthday," which were among the popular attractions of two recent Academies. "The Ancient Town of Seaford" is rendered, through Mr. Haité's picturesque sketches, a good deal more interesting on paper than it is in reality. "The making of Axminster Carpets" is described and illustrated, and Mr. Lewis F. Day writes a short illustrated article on "Tiles," which is useful and instructive both in an æsthetic and a practical sense.

The *Art Annual* (in connexion with the *Art Journal*) is devoted to the life and works of Mr. Luke Fildes, RA, the literary portion being by Mr. Croal Thompson, the editor of the *Art Journal*. It is very well done, and is illustrated not only by reproductions from the artist's principal works, but also by a number of sketches and studies of single figures and heads. "The Doctor" forms the frontispiece, and it is interesting to compare with this the original sketch for it given on page 13.

* The object of these notes is to point out anything in the contents of the current magazines which is of special interest to our readers, with occasional brief criticisms on the views expressed in such articles. When a magazine which has been sent to us is not noticed, it is because that number contains nothing that it is within our province to comment upon.

The *Studio* includes an article on the artistic treatment of cottages, by Mr. Horace Townsend, illustrated by designs by his brother Mr. C. Harrison Townsend. These are pretty enough, but they are only imitations of a style of building belonging to other days—antiques, and not the genuine picturesque springing out of the requirements of to-day. Mr. Bulkman's article on "Egypt as a Sketching Ground" is charmingly illustrated, and there is as usual a great variety of interesting illustrations of decorative work. The ridiculous coloured print called "Isolde," with no artist's name, but looking like a vagary of Mr. Beardsley's, is, one might almost suppose, inserted as a joke or to see how much readers in the present day will swallow; in any case it is a discredit to any publication claiming to be artistic.

*Scribner* devotes a paper to the works of Mr. MacMonnies, the American sculptor, who is a very able artist, but seems to be getting tremendously pushed in the press just now; we have come across articles on him and illustrations of his work on all sides during the last few months, the result of which is not entirely to the advantage of the artist. The article on "Landmarks of Manhattan" by Mr. Royal Cortissoz, deals really with some of the architectural aspects of New York, in a broad and sympathetic spirit. Mr. Cortissoz does not entirely believe in letting cities grow up their own way, and has a good word to say even for the (to many) nefarious memory of Haussmann, and for the spirit and largeness of scale which he showed in his Paris improvements. "The great architectural episodes of the world have been focussed sometimes with the spontaneity of a masterly improvisation, sometimes through the cumulative action of years: they have grown and they have been made." It is not every writer on architecture who can see these two sides of the question impartially. The chapter on wood engravers deals with Florian, the illustrations of whose work, including an engraving of a portrait of Walter Scott by Wilkie, show a fine and masculine style of pure line-engraving which is welcome in these days of spottiness and dottiness.

The *Century* contains an article by Mr. Royal Cortissoz on "Mural Decoration in America," well-written but rather marked by the usual tendency of American art-critics to make the most of American work. A fine engraving of the clothed figure from Titian's so-called "Earthly and Heavenly Love" forms the frontispiece to the number.

*Harper* touches upon art only in its frontispiece, which again illustrates American decorative art, in an engraving of a very charming St. Cecilia picture, a design by Mr. F. S. Church for a stained-glass window for the Grand Rapids Saint Cecilia Society.

In the *Atlantic Monthly* No. IV. of Mr. Peabody's papers on "An Architect's Vacation," dealing with the Italian Renaissance, is very interesting, and contains some excellent critical remarks on the work of Brunelleschi and Michelangelo. Mr. Peabody thinks as an architect and writes as an accomplished man of letters—a combination not always met with.

The *Antiquary* has an illustrated article on "Some Further Examples of Irish Plate," and another on "Water-Marks on Paper," also illustrated; this latter is a curious subject which has not received much attention.

The *Engineering Magazine* (New York) contains a short article by Mr. H. Heathcote Statham on "Contemporary English Architects and their Works," illustrated by a number of reproductions from photographs and lithographs of buildings, which have been very well carried out. It is to be hoped that the personality involved in expressing opinions on living architects and their work may be condoned in consideration that the object of the article (as will be seen from the concluding sentence) was to recommend English architecture to the greater attention of American architects and those interested in architecture. Among other articles in the same number are "The Distribution of Power in Collieries" by Mr. Llewelyn B. Atkinson; "The Limits of Electric Power Transmission," by Mr. Alton D. Adams; and "The Colorado Springs Waterworks," by Mr. Arthur Lakes.

The *Nineteenth Century* contains an article by Sir Charles Robinson on "Art Connoisseurship in England," a criticism of the present position, arguing (we fear with only too much truth) that connoisseurship in this country has declined from the educated taste in works of art of the highest class, for their own sake, to a mere collection of objects the value of which is ruled by fashion, and the standard is their present money-value at an auctioneer's. In the days when the writer of the article made his first art-pilgrimage, "in the *diligence*, not on the railway," there was a glorious faith in Venus and Apollo, Greek marbles Raffaelle, Michelangelo, Titian, &c., a faith perhaps too simple; "but surely this was better than the strange quaintness of newly-found Japan or Egyptian gods and scarabs, than hideous Blakes and Rowlandsons, than pots and pans and maudlin Bartolozzis and coloured prints." One cannot quite forgive Sir Charles for grouping Blake with Rowlandson, but otherwise his protest is not without cause. Mr. Hadden's article in the same number on "The Change of Our Musical Pitch" should be read; it will be found to be a much more serious matter, in a practical sense, than a mere question of musical taste or theory.

In the *Pall Mall Magazine* Mr. Grant Allen (who had only finished in the last number one division of his subject of "Evolution in Early Italian Art," and not the whole, as we supposed) writes a very interesting article on the subject of "The Presentation in the Temple," showing the curious persistence of nearly the same traditional arrangement and the same personages in a series of paintings in chronological succession. The third of a series of articles on "Unknown Paris" deals with artists, their haunts and their portraits. A poem by Louise Chandler Moulton in the same number is illustrated decoratively in a rather bold and striking manner.

*Le Monde Moderne* includes a most interesting illustrated article on the old Mediæval hospital at Beaune, with sketches of a number of its picturesque bits of architecture and detail, and headed by an elevation of the quaint street façade, with its little windows and long spaces of wall. "Comment en Construit un Cuirassé" is a practical article on the process of building an iron-clad, with constructional sections, &c. Under the title "Coins du France" is another archæological article, with sketches of architectural remains in the old French town of Vienne and its neighbourhood. An article on the Institute of France gives an account of the celebrated building facing the Pont des Arts, with illustrations of its architectural features, interior and exterior.

The *Gentleman's Magazine*, in an article on the "Birth and Growth of the Broad Gauge" (ostensibly a review of Mr. Sekon's "History of the Great Western Railway") puts together a good deal of information on the subject in an interesting manner.

The *Artist* contains a good deal of information and illustration of a miscellaneous character, with nothing that can be selected for special mention.

The *Windsor Magazine* contains an article on "The Art Treasures of Manchester," that is, the contents of the Manchester Art Gallery, with illustrations of a number of the principal pictures. The article is by Mr. Howarth, the Curator of the Mappin Art Gallery at Sheffield, who seems to regard pictures from a rather too moralising point of view.

*St. Nicholas*, a magazine "for young folks," deserves mention here for the good style of its illustrations as well as for the useful character of some of its articles. "Launching a Great Vessel" by Mr. Franklin Matthews, gives an account of a function which ought to be interesting to all children of a maritime nation. The two pages of silhouette studies of "Weekdays in Dolly's House" are excellent, and may serve children with lessons in drawing as well as amusement.

*Punch Pictures*, No. 26, includes a number of drawings by Leech and Doyle, and also one of the very best of Keen's military subjects, that of the Irish soldier who told the sergeant that "some of us ought to be in a menagerie." In comparison with some others in the book, the drawing seems a very simple one at first glance, but every detail in it is perfect.

The new interest taken in self-propelling carriages is already signalised by the appearance of a small monthly periodical, *The Auto-car*, devoted to this subject.

## THE LONDON COUNTY COUNCIL.

THE usual weekly meeting of this Council was held on Tuesday, at the County Hall, Spring Gardens, Sir Arthur Arnold, Chairman, presiding.

*Unification of London.*—The greater part of the sitting was devoted to a discussion on the question of the unification of London. The Earl of Onslow moved the following resolution, which was seconded by Mr. Boulnois:—

"That, inasmuch as it is desirable forthwith to take steps to facilitate the carrying into effect of the recommendation of the Royal Commission on the amalgamation of the City and County of London, that no duties should be thrown upon the central authority which can be equally well performed by the local authorities, it be referred to the Local Government and Taxation Committee to arrange a conference between representatives of the Council and the Vestries and District Boards of the Metropolis to consider and report what powers now possessed by the Council should be transferred to the local authorities."

Mr. Hoare moved the following amendment, which was seconded by Lord Farrer and ultimately agreed to by a majority of 14:—

"That the word 'recommendations' be substituted for the word 'recommendation' in line 2, and that the following words be inserted after the word 'London' in that line:—'one of which was'"

A division on the amendment as a substantive motion then followed, with the following result:—For the motion, 73; against, 54.

Mr. Whitmore, M.P., on the same subject moved: "That Her Majesty's Government be requested to appoint a Commission to inquire and to report what changes should be made in the areas of local administration in the metropolis, so that the whole county of London shall be divided into districts governed by municipal councils; and that it be an instruction to the Commission in their delimitation of such districts to adhere to existing boundaries, and to regard local feeling and historic development so far as may be consistent with considerations of administrative convenience."

Lord Tweedmouth proposed the following amendment:—"That Her Majesty's Government be requested to introduce in the coming Session of Parliament, a Bill, providing, on the general lines of the Report of the recent Royal Commission, both for the amalgamation of the City and County of London and for the creation of Local Councils, so that the whole County of London shall be divided into districts governed by Councils, whose electoral areas shall follow existing boundaries and be determined with regard to local feeling and historic development, so far as may be consistent with considerations of administrative convenience."

After further discussion, the debate was adjourned until next week.

*East London Water Supply.*—The Parliamentary Committee reported:—

"The Council on November 20, 1894, referred back to us our report presented on that day with respect to the resolution of the Council on July 3, 1894, referring it to the Water and Parliamentary Committees to take such measures as they considered advisable with a view to obtaining legislation to raise the limit to which the East London Water Company is required to give a supply to a reasonable height of, say, 70 ft. from the nearest pavement. Having regard to the resolution of the Council to introduce a Bill last session for the purchase of this company's undertaking, we thought it then expedient to proceed simultaneously with a Bill for the object indicated, but we have now fully considered the matter, and have had before us certain heads prepared by the agent upon the lines of which, as amended by us, we have instructed him to prepare a Bill. The resolution of the Council specifies a height of 70 ft. as that to which the company should be required to give a supply, but on full consideration we have thought it preferable that the company should be made subject to the provisions of the general law contained in Section 35 of the Waterworks Clauses Act, 1847, which requires that a supply of water shall be constantly laid on at such a pressure as will make the water reach the top story of the highest houses within the limits of supply. We have instructed the agent to draft the Bill and prepare the notices on these lines, and we will in due course submit the Bill to the Council for approval. We recommend that the instructions given to the agent as regards the drafting of the Bill and the preparation of the notices be approved."

Mr. B. Hope moved to refer the recommendation back to the Committee, but after some discussion the amendment was rejected and the report was agreed to.

*Mill-lane, Deptford, Improvement Scheme.*—On the recommendation of the Public Health and Housing Committee, it was agreed that the Council do retain the land acquired under the Mill-lane, Deptford, improvement scheme for the purpose of itself erecting the buildings for the accommodation of the number required under the scheme, and do make application to the Local Government Board for their consent to such a course being adopted; and that the Committee be authorised to employ an outside architect to design plans of dwellings to be erected on the Mill-lane, Deptford, area for the accommodation of not less than 570 persons, such dwellings to include a common lodging-house which shall accommodate not less than 200 persons, on the understanding that the Council is in no way pledged to the building of a lodging-house until

details and particulars are submitted and approved by the Council.

*Brooke's Market, Holborn, Improvement Scheme.*—It was also agreed, on the recommendation of the same committee, that, subject to the sanction of the Local Government Board, the Council do itself erect the necessary dwellings on the area comprised in the Brooke's Market, Holborn, improvement scheme.

After transacting other business the Council adjourned.

## *ARCHITECTURAL SOCIETIES.*

MANCHESTER SOCIETY OF ARCHITECTS.—The annual conversazione of this Society was held on the 1st inst. at the City Art Gallery, Mosley-street. The guests were received by the President, Mr. John Holden, F.R.I.B.A., and among those who accepted the invitation to be present were Sir E. Leader Williams, Dean Maclure, Dr. Ward, Dr. Hopkinson, Messrs. T. de Courcy Mead, W. Goldthorpe, Leo Grindon, Elias Bancroft, and others. A collection of architectural drawings was on view in the lower galleries; these were contributed chiefly by members of the society, and other architects in Manchester and the district — viz., Messrs, Beaumont, J. Brooke, Booth & Chadwick, A. E. Corbett, Darbyshire & Smith, F. W. Dixon, E. H. Dawson, Knill-Freeman, Goldsmith & Son, C. S. Haywood, E. Hewitt, J. Horsfall, C. Heathcote, Littlewoods, E. W. Leeson, H. A. Matear, F. W. Mee, Myresbeevers & Myres, W. Owen, F. H. Oldham, P. Silcock, M. Taylor, Waddington & Son, Woodhouse & Willoughby, Worthington & Sons, Whitelegg & Whittaker. A number of interesting artistic trade exhibits had been sent by Mr. William Morris, London, Mr. P. Rathbone, Liverpool, Mr. Faulkner Armitage, Bowdon, and Messrs. Waring, Heighway, Elkington, Doulton, Wragge, & Williams. The autumn exhibition of pictures and the permanent collection were on view in the upper galleries. An amateur orchestra gave a selection of music during the evening. The catering was in the hands of Mr. R. J. Matthews.

THE GLASGOW ARCHITECTURAL ASSOCIATION.—A lecture was delivered in the rooms of this Association, 187, Pitt-street, on Tuesday, by Mr. Malcolm Stark, I.A., on "Asylum Planning." The President (Mr. A. N. Paterson, M.A.) occupied the chair. After a few introductory remarks the lecturer said that there was no finality in asylum planning, and by means of diagrams illustrated the corridor plan and block plan. The former was favoured by the Commissioners of England, while the latter was favoured by the Commissioners of Scotland. The corridor plan was more serviceable for supervision by medical attendants, although it had disadvantages in indistinct classification. Perhaps the principal reason of its adoption by England was cost, the asylums there being on a much larger scale than in Scotland, and therefore requiring to economise more. He then described in detail the several apartments in an asylum building, and also on the heating, ventilation, and drainage, noting in particular that there ought to be a plentiful supply of water, in case of fire, and that all the rain-water should be stored. Architecturally, he thought that the buildings should be as much of a domestic nature as possible, and so take away the institution appearance. It was also desirable to have the decorations of each block different, so as to take away the monotony which would be apt to belong to such an institution. At the close, a hearty vote of thanks was passed to Mr. Stark for his able lecture.

BIRMINGHAM ARCHITECTURAL ASSOCIATION.—The second general meeting of the current session was held at the rooms of the Society on Friday evening last week. The President, Mr. Wm. Henman, presided. After some preliminary business had been transacted, including the nomination of fourteen new members, the chairman called upon Mr. Percy Fitzgerald to deliver his lecture on "The Brothers Adam" and their work, illustrated by lantern-slides.

ARCHITECTURAL ASSOCIATION DISCUSSION SECTION.—The second meeting of the Discussion Section of the Architectural Association was held at the rooms of the Association on Wednesday, Nov. 6, at 7 p.m., when Mr. F. G. W. Buss read a paper entitled "Quantities from Four Different Points of View." It was followed by a very active discussion, in which Messrs. Nicholson, Leaning, Fleming, Pywell, Weymouth, Sharp, Jones, Hopkins, Stockdale, and Max Clarke took part. Messrs. Henry Holloway (of Holloway Bros.), and Tarring (of Perry & Co.), gave their views of the matter from the builder's point of view.

# Correspondence.

*To the Editor of* THE BUILDER.

## RECULVER CHURCH.

SIR,—In reference to the letters on Reculver Church and on "Pre-Conquest Architecture," in the current issue, I may mention that the remains of the so-called St. Pancras Church at Canterbury are to be seen in the ground where the Kent and Canterbury Hospital stands, a little to the east of that building. Except in one part there is nothing standing but a few courses of brickwork. The material is, however, Roman, and the workmanship very careful. This could be studied better a few years ago, before the tops of the walls were cemented over. Writing in the 14th century, William Thorne, a monk of St. Augustine's, within the precincts of which the building in question is situated, tells us that there had been a Pagan temple, or idol house "not far from the city, towards the east, as it were midway between the Church of St. Martin and the walls of the city," and that Augustine turned this into a church, dedicating it in the name of the martyr, St. Pancras. Whether or not Thorne is right about the early history of the building, there can be little doubt that what he knew as St. Pancras Church is the structure the remains of which we now call by that name. The indication he gives of the site, together with the character of the remains, is enough to convince even the rigid critics who refuse to identify the existing pre-conquest chapel at Bradford-on-Avon with the "ecclesiola," said to have been built by Aldhelm, which William of Malmsbury says existed there in his day.

The brickwork at St. Pancras is more regular and Roman-looking than anything to be seen at this day at Reculver, though the Roman origin of the famous columns which stood in the latter church is quite undoubted. Your correspondent, "F. G.," has evidently an interesting collection of drawings of Reculver, and I should be grateful if he would, some day, give me the chance of a sight of them. G. BALDWIN BROWN.

*University of Edinburgh*, November 3.

## THE NEW ARTIFICIAL STONE.

SIR,—Referring to the paragraph in your valuable paper of the 26th ult. upon this subject, in which reference is made to "Owen's Patent Artificial Stone," will you allow us, on behalf of our clients, The Sandstone Syndicate of London, Limited, to state that this new and valuable artificial stone is their property, and is covered by three patents dated May 1891, April 1893, and June 1894, and also that Owen's Patent is subsequent in date to the above, of which it appears to be an infringement.

MUNNS & LONGDEN,
*Solicitors to the Company.*

8, *Old Jewry, London, E.C.*,
November 5, 1895.

## CHOLMONDELEY GRAMMAR SCHOOL.

SIR,—On a fine day it is thoroughly enjoyable to walk right across Hampstead Heath and up the Spaniard's-lane to the North-road in Highgate, but as one approaches the Cholmondeley Grammar School there is an eyesore in view which detracts from the enjoyment. I speak of the brick slate-covered erection within the school grounds immediately in front of the principal elevation. I heard it said some time ago that this is only temporary. It is none the less an eyesore, and is getting dangerously old.

The building in question is hardly a public one, and it is not surprising, but it is grievous, to find governors as a body apparently as callous as many private owners.

The loving care which the late Mr. Fred. Pepys Cockerell bestowed on his work is known to all, and this work (one of the few of his in London and its vicinity) with its beautiful little chapel, testifies to this. I presume it is no secret that the late Mr. G. E. Street held it in high admiration.

HARRY SIRR.

## *OBITUARY.*

MR. E. P. LOFTUS BROCK.—It is with great regret that we have to record the death of Mr. E. P. Loftus Brock, F.S.A., which took place on the 2nd inst. He had been suffering from cancer for the last nine months; and the end came rather suddenly. Mr. Loftus Brock was the son of Jas. L. Brock, and belonged to an old Guernsey family; his father was an old Peninsula officer, and served with the 6th and 85th regiments. Very early in life Mr. Brock showed a great predilection for art, and especially the art of architecture. He studied at the Royal Academy Schools, where he gained a silver medal. Mr. Loftus Brock entered the offices of Messrs. W. L. & E. Habershon in 1851. He remained there until the two brothers severed their partnership, when he became Mr. E. Habershon's managing clerk. Having acquired partnership with his employer, the firm then known as E. Habershon & Brock carried on practice for many years, during which period Normanhurst Court, Battle, the seat of Lord Brassey, was erected for the late Mr. Brassey; also the rebuilding of Ore Place, and many new houses on the St. Helen's Estate, Hastings, a mansion at Bournemouth, a picture gallery at Baldstow, the Village Hospital, East Grinstead, Master's House at Harrow, for the Rev. Dr. Vaughan; the laying out of the Manor Estate, Wallington; Mr. Causton's Estate, Balham; the Custom House land for Mr. Brassey; estates at Kilburn, Godstone, Harrow, Teignmouth, Highgate, &c., with most of the buildings and roads. A large number of churches were erected or restored, among them St. Augustine's, Highbury New Park; Park Presbyterian Church, Highbury; Hammerwood Church, Sussex; a church for Lady Lampson at Rowfont, Hethersgill Church, Cumberland; Wallington Church; St. Helen's, Ore, Sussex, where, by Mr. Brock's efforts, the ancient portions of the former church were allowed to remain as a ruin; St. Andrew's, Hastings; Ellacombe Church, Torquay; the remodelling of St. Saviour's, Hans-place, Chelsea; St. Paul's, Carlisle; St. John's, Cotehill, Cumberland; St. Paul's, Newbarns, Barrow-in-Furness; the rebuilding of the Church at Dallington, except its ancient spire, and of St. Mark's Horsham, &c. On the retirement of Mr. E. Habershon in 1879 the whole of the practice was left to Mr. Loftus Brock. Among the works carried out during this latter period may be mentioned the various homes of the National Refuges for Homeless and Destitute Children, including the remodelling of the old Manor House, Ealing, and the old mansion, Fortescue House, Twickenham, to adapt them for homes for boys and girls respectively, the new buildings at Sudbury Hall, the Bisley Industrial Home, and the Shaftesbury Home, near to it. The large block of buildings, Shaftesbury House, Shaftesbury-avenue (the foundation-stone of which was laid by the Prince of Wales), were erected for the same society. The German Orphanage, Dalston, and schools at Pentonville, Felbridge, Hastings, Newhaven, and the Missionary College, Palestine-place. He had built churches at Newhaven, Iping Marsh; St. Columbs, Notting Hill; St. Philip's, Cambridge, St. Matthias, Lincoln; St. Mark's, Forest Gate; and had repaired others at Westbere, Coldred, Staple, Crundale, Ruckinge, East Langdon, and Upper Hardres, all in Kent; Tollesbury, Essex; Preston Bissett, Bucks.; and St. Mary's, West Kensington, has been remodelled; Iping Church nearly rebuilt; a new chancel erected to St. Mark's, Horsham; the old ruin, St. Botolph's Colchester, strengthened; additions made to Broadwater Church, &c.; new reredos to Detling Church, Kent, and also to Llandilo Church, Carmarthenshire. Among general works were the enlargement of the Scottish Club, Dover-street; Granville Chambers, New Oxford-street; a new vicarage house at Kensington Park; St. Matthew's Hall, Bayswater; and additions to the Anchor Institute, Notting Hill Gate. After the death of Mr. Drayton Wyatt, Mr. Brock took in hand the various works at Sudeley Castle, Winchcombe, for Mrs. Dent, and superintended the excavation of the remains of Winchcombe Abbey, and succeeded in the recovery of a large portion of the ground plan of the church; quite recently, the Roman Villa in the Wadfield, near Sudeley Castle, has been unearthed, under Mr. Brock's direction. Mr. Brock was a man of great tact and skill, and could transform an old building at a comparatively small cost, and the same characteristics, added to his genial and courteous manner, often brought to a successful issue some of the most difficult complications with which an architect has to deal. During his long career, a large number of old churches came under his care, they were treated with tender and almost loving consideration, always striving to retain what was ancient and of real interest to the fabric, and yet leaving the work with a new lease of life, substantial and sound. He had of late years developed a form of timber church, chiefly used as mission churches, the pillars, the arcade, and the clearstory being all of timber construction, the outside walls only being of masonry or brick. The vista of the interior in some of these churches is very effective. The exterior elevations are mostly of the thirteenth-century style. For many years Mr. Brock held the office of Honorary Secretary to the British Archæological Association, and latterly he was unanimously elected Treasurer. At the annual congresses of the Association he always took a most active part in the meetings, his knowledge on antiquarian subjects being most extensive. He was the author of a great many papers and essays dealing with archæology. He was a Fellow of the Society of Antiquaries, and also of the Royal Institute of British Architects.

## *GENERAL BUILDING NEWS.*

RESTORATION OF BUBWITH PARISH CHURCH, YORKSHIRE.—The parish church of All Saints, Bubwith, has just been restored, the work being

carried out by Mr. T. S. Ullathorne, contractor, of Selby, under the superintendence of Mr. J. Hodgson Fowler, architect to the Restoration Committee, and the late Mr. Ewan Christian, architect to the Ecclesiastical Commissioners. The ancient font, which was discarded by the previous restorers of the church, has been replaced in the sacred edifice.

ROYAL HOSPITAL FOR SICK CHILDREN, EDINBURGH.—The new hospital which has been built at Meadowside, Edinburgh, for the treatment of sick children has just been opened by Princess Beatrice. The site at Rillbank has a frontage to the south along Sciennes-road of 384 ft., a frontage to the west along Sylvan-place extending to 264 ft., and having access also from Rillbank-terrace, which forms part of the northern boundary. The block plan of the main hospital building is in the form of the letter E, the administrative block being in the centre of the building, and the wards in the two arms, cut off from the centre by disconnecting cross ventilated corridors. It is set with its open side towards the south, the administrative block running east and west, and the wards north and south. The administrative block is five stories in height, the two upper stories being in the roof; and the ward wings are three stories in height, the upper one being partly formed in the roof. The principal wards are upon the ground and first floors, those upon the third floor being spare, observation, and isolation wards. The kitchen, with its accompanying larders, milk-house, and stores, is placed upon the fourth floor, and the dormitories and bed-room accommodation for the domestic staff is upon the fifth floor or attic. The main entrance is from the south, in the centre of the administrative block, by a large entrance hall, across the end of which runs a 10-ft. wide corridor, extending right and left nearly the whole length of the building to the ward doors. Immediately to the right and left of the entrance-hall are the suites of rooms devoted to the matron and the resident doctors, while opposite the entrance-hall, in the centre of the administrative block to the north, is the surgical theatre, with a gallery to accommodate eighty-four students. To the right of this is the principal staircase, and to the left the service stair, while beyond these, occupying the north-east and the north-west corners of the administrative block are rooms for the visiting physicians, one for each ward. At the end of the administrative block, the corridor is intersected by glazed screens. Play alcoves for the convalescent children of each ward are formed in bays to the south. Each of the four principal wards—that is, those upon the ground and first floors of the ward wings—is 84 ft. 6 in. long, 23 ft. wide, and 15 ft. high. They are arranged for twenty-four cots to each ward, which allows 81 superficial ft. of floor space and 1,215 cubic ft. of air space to each child. The total accommodation is 118 beds. The floor of the wards is laid with teak boards in narrow widths, and the walls are finished with parian cement polished to a perfectly hard and smooth surface. The angles of walls and ceilings are rounded, all ornamentation is excluded, and every precaution taken to avoid corners or ledges. In communication with each ward is a kitchen or pantry, while attached to each ward at the south end in the turrets, but disconnected by a cross ventilated lobby, are a bath-room, a lavatory, a slop sink-room, and a water-closet. The general arrangement described above for the ground floor is repeated upon the first floor up, where the medical lecture theatre takes the place of the surgical one on the floor below, and the south range of rooms in the administrative block are devoted to the Board-room, museum, ophthalmic room, dispensary, assistant-matron's room, staff dining-room, and nurses' sitting-room. The wards in the wings are in every respect duplicates of those upon the ground-floor. On the second floor up the wards are sub-divided into observation, isolation, and spare wards, each with kitchen and lavatory accommodation as on the floors below. The front of the administrative block is devoted to a suite of bedrooms and sitting-room for the Sisters or Staff nurses, who have each charge of a ward, and to a sick-room for any members of the staff who may be invalided; while the north half of the administrative block and the northern end of the ward wings are devoted to bedrooms for the ordinary nursing staff. At this level the E-shape of the plan and the principal staircase terminate, and the central administrative block alone is carried up with the service stair. On the fourth floor are placed the kitchen, scullery, &c., and general stores to the north; and servants' hall, sewing and linen room, mattress room, &c., to the south. A hydraulic lift placed in the well of the service stair rises to this floor. The service stair terminates at this level, and a wooden stair leads to the attic above, where are the bedrooms and dormitories of the domestics. The dormitories are divided by wooden screen partitions into cubicles, but the whole of the nursing staff are provided with separate bedrooms. The building throughout is fitted with electric light generated by a duplicate set of boilers. Externally the building is of red sandstone from Corsehill Quarry. The design is based upon the English Renaissance of the sixteenth century. There are several adjuncts to the main building, such as the nurses' annexe, with bedrooms for the night nursing staff, the mortuary and pathological rooms, the out-patients' department, the laundry buildings, boiler-houses, engine-room, &c. The nurses' annexe and the pathological blocks are in close proximity to the main building, to which they are attached by covered corridors. The out-patients' department, laundry, and electric lighting buildings, are ranged along Sylvan-place, and are quite detached from the hospital proper. The entire building has been erected from the designs and under the personal superintendence of the architect, Mr. G. Washington Browne, A.R.S.A., and Mr. Winton has acted as clerk to the works. The buildings will cost about 40,000*l*. The contractor for the mason work was Mr. Hugh Mackintosh, and for the joiner work, Messrs. W. Beattie & Sons.

PATENT OFFICE EXTENSION.—Block III. of the Patent Office extension is fast approaching completion. The building is being erected for Her Majesty's Office of Works from the design of Mr. J. Taylor, C.B. Mr. B. E. Nightingale is the contractor. The floors and ceilings are fireproof throughout on the "Mark Fawcett" system.

NEW POLICE-STATION, LICHFIELD.—The police-station at Lichfield having become insufficient for present needs, a new police-station is to be shortly erected. The architect is Mr. John P. Osborne, of Birmingham.

CHURCH, PLEASLEY HILL, DERBYSHIRE.—The foundation stone has just been laid of the new St. Barnabas's Church, at Pleasley Hill. The cost of the new edifice, which is to be built by Mr. Adams, Eastwood, to the design of Messrs. Naylor & Sale, Derby, will not exceed 3,500*l*. It will be of red brick, both inside and out. At present it is proposed to erect a nave, aisle, and porch only, the whole to cost about 1,600*l*. When the church is completed there will be room for 350 people.

PARISH CHURCH, MILLBROOK, CORNWALL.—The consecration of a new parish church for Millbrook has just taken place. The foundation-stone was laid two years ago, and the building has been erected by Mr. Blowey, of Plymouth, from designs by Messrs. Hine & Odgers. The exterior is faced with Polyphant and Bath stone, and in the interior are arches of similar material. The pulpit, by Reed, of Exeter, is of carved oak, illustrating "The True Vine." The church, capable of seating 800, is heated throughout with hot-water pipes, and contains a side chapel for smaller services. The organ has been reconstructed.

EXTENSION OF CITY HOSPITAL, ABERDEEN.—The extensive additions and alterations at this (infectious diseases) hospital, belonging to the Town Council, have just been completed. The hospital is on the detached-pavilion system, and the administration block is a separate building in the centre. Two of the four hospital pavilions have been enlarged to accommodate sixteen additional patients each. A mechanical heating and ventilating apparatus has been placed in the basement floor of the administrative block, whither underground ducts from the pavilions lead. The warm air will be expelled by Blackman fans. In the ground floor of the administrative block as extended is a large kitchen. On the first floor over this kitchen is an extensive suite of nurses' bedrooms. The new block of offices measures 145 ft. 6 in. by 96 ft. 6 in. There is an open court in the centre. The offices also include stable, ambulance-van house, lavatory, dirty and clean clothes' rooms, disinfected clothes' rooms, and boiler-house. On the first floor of the offices there are extensive drying and hay-lofts. There are also a new mortuary and a second gatekeeper's lodge. The extensions, including fittings, have cost upwards of 18,000*l*. The architect is Mr. John Rust, jun., City Architect, Aberdeen. The original buildings have concrete walls, but in the extension granite has been used. The grounds, where not occupied by buildings and walks, have been laid out by Mr. Robert Walker. It may be mentioned that there is under consideration a scheme to add probationary wards at a cost of about 6,000*l*. Allowing for probationary wards thirty-two beds, this would bring up the total hospital accommodation to 150 beds.

WESLEYAN CHAPEL, BRADBURY, DURHAM.—On the 26th ult. the new Wesleyan Chapel at Bradbury was opened. The building in its finished state will accommodate about 360 persons, and will be capable of being divided by a movable partition into chapel and schoolroom. The walls are of brick, with stone dressings. The open roof is formed with dressed trussed principals, finishing upon ornamental corbels, and is boarded throughout to the level of the collar. Boyle's ventilators are used in the roof, and the chapel is heated by a Musgrave stove, the school having an open fire-place. The seats and the whole of the interior woodwork are of pitch-pine. The work has been designed and carried out under the personal superintendence of Mr. Frank Martin, the contractors being as follow:—Builder and slater, Mr. J. G. Robson; carpenter and joiner, Mr. R. F. Snaith; ironfounder, Mr. J. Dobbing; plumber and glazier, Mr. Wm. Coates; painter, Mr. T. Metcalfe—all of Darlington.

BOARD SCHOOL, BRISTOL.—On the 1st inst. the new schools at Barton Hill, which have been built by the Bristol School Board, were opened. The new schools occupy the site of the old building which was known as Tilly's House or Queen Anne's House, in Queen Anne's-street. The architect was Mr. F. Bligh Bond, of Bristol, the builder being Mr. Perrott. The materials were brick and free-stone. The general plan is that of a large central hall, out of which the class-rooms lead. Upon the ground-floor are four class-rooms, the teachers' room, and the necessary offices, and the first-floor comprises four class-rooms, communication between which is afforded by a gallery. Mr. Bond having incorporated a decorated ceiling and two fireplaces, which were part of Queen Anne's House, in the schools. Accommodation has been provided for 520 children, at a total cost of nearly 7,000*l*.

THEATRE, STRATFORD.—A new theatre is being erected in the High-street, Stratford. Mr. Frank Matcham is the architect. The pit will be 70 ft. wide and 70 ft. deep, and will hold about 1,500 people; and the stage will be 35 ft. wide by 45 ft. On the first floor the dress-circle will seat 200, the upper circle 500, and the gallery about 1,000. The house will be quite isolated. The total cost of the building will be about 23,000*l*.

RESTORATION OF KIDDERMINSTER PARISH CHURCH.—Kidderminster Parish Church has recently been restored. The restoration includes the re-casing of the tower, and the restoration of the clearstories and of the west end of the nave, including new parapets. The stone groining under the tower, which had been taken down years ago, has also been restored. The work has been executed from the plans of Mr. A. J. Chatwin, architect, of Birmingham.

PUBLIC HALL, STRATHAVEN, BANFFSHIRE.—A new public hall is in course of erection at Strathaven. The frontage of the hall to Kirk-street extends 49 ft., while the building runs along Thomson-street for 100 ft. The main entrance is from Kirk-street. The area of the large hall will be seated for 550, and the gallery for 100. The platform will be of ample extent to accommodate large companies. On the ground-floor to the front there is an office, recreation-room with ladies' retiring-room, committee-rooms, &c. In the basement under the platform there is a large room, two retiring-rooms, kitchen, heating-room, and a store for seats. On the upper floor, over the offices to Kirk-street, is the lesser hall, to be seated for 130, with an ante-room and another large room, which will be suitable for reading-room and library. Mr. Alexander Cullen, architect, Motherwell, prepared the plans.

CONCERT-HALL, BLACKHEATH.—A new concert-hall has just been opened at Blackheath. Messrs. J. Edmeston and G. Gabriel are the architects.

WESLEYAN CHAPEL, CARDIFF.—The opening services at the new Wesleyan Chapel, Ludlow-street, Lower Grange, Cardiff, were held on Monday. The contractors were Messrs. E. Turner & Sons, and the architect Mr. Herbert Turner.

COTTAGE HOSPITAL, PORTH, GLAMORGANSHIRE.—The Porth Cottage Hospital was opened on Monday, by Mrs. George Thomas. The architect is Mr. F. Gibson, Pontypridd.

KIRK MEMORIAL EVANGELICAL UNION CHURCH, EDINBURGH.—The Kirk Memorial Evangelical Union Church, the foundation-stone of which has just been laid, is situated at East Montgomery-street, Edinburgh. It is designed in Early Perpendicular style, with nave and transeptal projections. In the interior there will be a vestibule, with panelled dividing screen; the seats are to have aisles on either side, and the pulpit will be placed at the junction of the west transept and choir arches. The church is to be seated for 400, and the hall below will accommodate 200. Vestry, session-house, and class-room accommodation is also provided for. The architect for the building is Mr. Hippolyte J. Blanc, A.R.S.A.

WESLEYAN CHAPEL, BIRKENHEAD.—A new Wesleyan chapel is to be erected at Birkenhead to take the place of Lowe-street Mission Room. The new building is to include accommodation for 300 people, with class-room, vestry, kitchen, &c. The walls are to be of grey local bricks with pressed brick dressings. The cost is estimated at 1,000*l*. exclusive of furnishing. The work will be carried out from the designs of Mr. T. Taliesin Rees, architect, of Birkenhead.

SCHOOLS, ASHTON-UPON-MERSEY, NEAR MANCHESTER.—The foundation-stone of the schools in connexion with St. Mary Magdalene's Church was laid on Saturday last. The architects for the schools are Messrs. Whitelegg & Whittaker, of Manchester. The building will be situate off Barker's-lane, and will accommodate 94 infants and 206 boys and girls in the mixed department. The infants' room will be 37 ft. 8 in. by 20 ft., and the mixed school is 57 ft. by 37 ft. 6 in.; the former is raised 3 ft. above the latter, and will form a platform with a proscenium opening 18 ft. wide by 12 ft. high for entertainments and parochial purposes, and the mixed school will form the auditorium. For school purposes the mixed department will be divided by movable glazed screens into four rooms which will accommodate 96, 33, 44, and 33 children respectively. There will be lavatories and cloakrooms for each department, two of which will be used as retiring-rooms for the performers at entertainments, and for this purpose are situated one on each side of the infants' school or stage. There will also be a cookery class-room in the basement 20 ft. square, having its windows entirely above ground.

## *SANITARY AND ENGINEERING NEWS.*

BUCKINGHAM SEWERAGE.—An inquiry was conducted at the Town Hall, Buckingham on the

29th ult. by Colonel C. H. Luard, R.E., one of the Inspectors of the Local Government Board, into an application by the Buckingham Town Council for sanction to borrow 9,050*l.* for works of sewerage and sewage disposal. A few years ago a scheme was prepared by Mr. Baldwin Latham, C.E., to deal with the sewage of the borough on a gravitation system, but the initial cost of this was too great, and the authorities had no alternative but to seek an entirely fresh scheme. Four engineers were selected to submit schemes, and that submitted by Mr. H. Bertram Nichols, C.E., of Birmingham, was adopted. Mr. Nichols' scheme, which he explained in detail before the Inspector, is one by which the whole of the sewage of the borough is pumped on to high ground within a short distance of the town. The outfall-sewer will be 12 in. in diameter, and have a gradient of 1 in 300, and a covered underground storage-tank is provided to contain the night-flow. Three-throw pumps in duplicate will raise the sewage after it is screened, the motive-power being two Hornsby-Akroyd oil-engines. A 6-in. cast-iron rising main will convey the sewage on to the land, there to be chemically treated before precipitation in two upward-flow circular "Candy" tanks. The clarified effluent from the tanks will pass over 7 acres of land laid out for sewage filtration. The subsoil is of a sandy nature. Some trial holes had been dug and the Inspector upon visiting the site expressed himself as well satisfied with the outfall and its purifying properties. The population is about 3,000. There was no opposition to the application.

SEWAGE WORKS, CHORLEY, LANCASHIRE.—The Corporation of Chorley have just completed their new sewage purification works at Common Bank Farm, at a cost of about 15,000*l.* Alderman Hibbert, C.C., the Chairman of the Sewage Committee, performed the opening ceremony on Monday, October 28. The works have been designed by the Borough Engineer, Mr. William Leigh, A.M.Inst.C.E., and the whole has been carried out under his direction. The "International" is the process adopted. Mr. Leigh has provided tanks of a total capacity of 1,120,000 gallons, and polarite filters of a total area of about 1,500 square yards. The sludge pressing machinery has been supplied by Messrs. Goddard, Massey, & Warner. These new works have been rendered necessary by the fact that the Chorley Sewage Farm has failed in producing an effluent to satisfy the requirements of the river authorities. At the conclusion of the opening ceremony in the Town Hall, Mr. Brierley, C.E. (Messrs. Brierley & Holt, Blackburn), speaking in response to the toast, "The Visitors," said that, as an engineer of forty years' experience, and one who held a public office for many years, he was able to judge of the labour involved in carrying out work of the kind they had seen opened that day. He had witnessed all the phases of the great sewage question, and the system of treatment adopted at Common Bank represented the last, the latest, and the most complete development.

THE WREXHAM AND ELLESMERE RAILWAY.—On Saturday last the Wrexham and Ellesmere Railway, which was begun in June, 1892, was opened for passenger and goods traffic. The new line runs through a picturesque district, and when the Wirral Railway is completed will permit of a new through route between Liverpool, Manchester, and the North, and South Wales. The chief engineer of the line is Mr. George Owen, of Oswestry. Only a single line of rails is laid at present, but all the bridges and viaducts are constructed to admit of a double line being put down.

PROPOSED RAILWAYS IN THE NORTH.—The West Highland Railway Company have instructed their engineers (Messrs. Forman & M'Call, Glasgow) to prepare the necessary Parliamentary plans and sections of a proposed extension of their railway from Fort-William to Ballachulish with a view to introducing a Bill in the ensuing session of Parliament.

DRAINAGE SCHEME, TICKHILL, YORKSHIRE.—An inquiry has just been held at Tickhill with respect to the borrowing of 2,500*l.* to carry out a scheme of drainage. The scheme had been prepared by Mr. Aird Murray, C.E., of Sheffield.

SANITARY CONDITION OF EXETER.—The Exeter City Council met on the 31st ult. to consider a report by Dr. Fletcher, medical officer to the Local Government Board, upon the sanitary condition of the city. Dr. Fletcher reported that with regard to the water supply, the analyses of the public analyst varied considerably, and that there were times when the water could not be considered of good quality. He was also informed that the river from which the supply was taken was polluted at Brampford Speke, Thorverton, Tiverton, and Bampton. The report dealt *seriatim* with sewerage and house drainage, ventilation of sewers, flushing, sewage outfalls, scavenging, house accommodation, slaughter houses, dairies, &c., common lodging houses, and sanitary administration. With regard to house accommodation, he said the accommodation in the newer parts of the city might fairly be described as good; but in the old part of Exeter, near the river, it had never been his lot to see in a comparatively small area so many dilapidated, ill-ventilated, badly-lighted, and filthy dwellings, as were to be found in that locality. Five or six properties were mentioned by name, and the inspector added that this whole area was overcrowded, and many of the houses were only fit for demolition. House accommodation for the lowest of the working classes in Exeter might be said to be as bad as it could be. The Town Council had erred in allowing repairs where demolition was the only remedy. In his concluding remarks Dr. Fletcher said it was obvious that a considerable amount of good work had been done in the city of Exeter within recent years, that similar work was progressing at the present time, and that a large expenditure on main sewerage was contemplated in the near future. The Town Council were, moreover, anxious to increase the accommodation for patients at the isolation hospital, and to provide proper quarters for trained nurses. On the other hand, their method of dealing with dwelling-houses which were dilapidated, or unfit for habitation, had not been creditable. Condemned property had been bought by mere speculators for a very trifling amount, patched up, and again become inhabited. In dealing with such dwellings there had been, on the part of the Town Council, firstly, a want of energy, one might almost say apathy; and, secondly, a great want of firmness. With regard to the water-supply, the Town Council should keep under careful inspection the River Exe and its tributaries, with a view to discovering all sources of pollution which might endanger the purity of the water supplied to the inhabitants of the city, and steps should be taken to prevent the continuance of such pollution. Special care should be taken to secure the efficient filtration of the water supplied for domestic purposes. The regulations as to dairies, cowsheds, and milkshops, now in force, should be carefully revised and amended with the assistance of the Medical Officer of Health, and the provisions therein contained should be strictly enforced. With a view to the more efficient sanitary administration of the district, the present by-laws with respect to—(*a*) new streets and buildings; (*b*) slaughter-houses, should be revived under the advice and with the assistance of the Medical Officer of Health and Surveyor. In this revision the Town Council should bring them, as nearly as the special circumstances of their district will allow, into conformity with the model by-laws of the Local Government Board. The report was referred to the Sanitary Committee.

## *FOREIGN AND COLONIAL.*

FRANCE.—M. d'Espouy has been elected Professor of Ornamental Design in the Architectural Section of the École des Beaux-Arts, in place of M. Ancelet, deceased.——The jury on the open competition for the rebuilding of the Audit Office on the Quai d'Orsay have just given their decision. There were twenty-one designs exhibited. The first premium has been awarded to M. Moyaux, Inspector-General of Civil Buildings, the second to M. Blavette, and the third to M. Marioud.——The Committee of Management for the 1900 Exhibition have just adopted the programme relating to the two palaces which are to replace the Palais de l'Industrie. They are to be built on each side of the new avenue between the Invalides and the Avenue des Champs Elysées. It has been decided that there should be a single competition for the two palaces, but two distinct judgments. The architects will therefore be able to compete for the two palaces at the same time, or for one of the two only. The programme of this competition, drawn up by M. Bouvard, will be submitted to the Municipal Council in a few days, and then to Parliament. Architects will be allowed three months after the Parliamentary decision.——On Sunday last the new Hôtel de Ville at Enghien-les-Bains was inaugurated. It is a large stone and brick building, in the style of Louis XIII. It is surrounded by a park.——On the same day the new Mairie at Pecq was inaugurated. It is a graceful building, in a square, on the banks of the Seine, and opposite the Terrasse de Saint Germain. ——The Minister of Fine Arts has just given a grant to the town of Dijon, for the restoration of the Salle des Ducs de Bourgogne in the museum there.——The Municipal Council has voted for the erection in Paris of a statue of Isaac Newton, to be paid for by international subscription.——The sculptor Emile Truffot has just died in Paris at the age of fifty-two. He was a pupil of Duret and of Carpeaux. He received honourable mention in 1883, 1885, and 1886, a third medal in 1887, and a silver medal at the 1889 exhibition.——We have also to announce the death of M. Aldrophe, a distinguished architect, and member of the Société Centrale. He built the synagogue in the Rue de la Victoire of which the *Builder* published a photograph some years ago. We shall give a special notice of him in our next letter from Paris.

AUSTRIA.—Two fountains of excellent design have been completed in connexion with the rebuilding of the front of the Imperial "Hofburg" which faces the city. Herr Weyr is the sculptor of one of the fountains. There is much of his work in the new Museums and the Hofburg Theatre.——A monument has been unveiled in memory of the late Mayor of Vienna, Dr. Prix. The monument is in form of an obelisk with a bronze medallion showing a portrait of the deceased Mayor in semi-relief.——Vienna will probably follow the example of Berlin in arranging a National Industrial Exhibition. Plans are being prepared for 1898, and we understand that the Government has promised to put a part of the Prater Park, with the old "Rotunda" of the Vienna International Exhibition, at the disposal of the influential committee that has the matter in hand.——The exhibition of tombstones has now been opened at Bruenn, and shows some excellent sculptural works as well as some good wrought-iron designs. A number of prominent Vienna sculptors have sent models. The Vienna Central Churchyard is well known for its elaborate monuments. The historical section of the exhibition should have been more complete. The example of holding an exhibition of this kind might be followed in London where the ugly stock tombstone is all too common.

## *MISCELLANEOUS.*

THE CARE OF OUR NATIONAL MONUMENTS.—The *Daily Chronicle*, in commenting a few days ago on the dangerous condition of the spire of Salisbury Cathedral, concluded its remarks as follows:—"It is simply a scandal and a disgrace that the care of our great national monuments, the cathedrals of England, should not be in the hands of a properly-qualified Government official, whose duty it should be, intelligently and continuously, to inspect them, instead of their being left, as at present, until they threaten to collapse, and then depending upon a paltry private subscription to patch them up temporarily."

ELECTRIC LIGHT FOR THE CANCER HOSPITAL, BROMPTON.—The Committee of the Cancer Hospital, Brompton, have decided to introduce the electric light throughout the hospital premises, and have instructed Mr. Morgan Williams, C.E., to prepare specifications for the work.

THE BLACKWALL TUNNEL.—Many thousands of persons have recently visited Blackwall Tunnel. All who enter pay 3d. each for the benefit of the Poplar Hospital. On Saturday last week friendly societies, with bands, banners, and regalia were early astir, and from ten onwards a stream of sightseers descended the cylinders to view the tunnel. At little distances along the tunnel models, showing how the boring was done, and the different stages of the enterprise, attracted much attention. Already houses are rising on the Greenwich marshes, for the building trade has received a mighty fillip by the making of this new link between north and south.—*Daily Chronicle.*

THE STRAND EXPLOSION.—Mr. Troutbeck, the Westminster Coroner, opened an inquiry on the 4th inst., at St. Clement Dane's Vestry Hall, concerning the death of Martin Ernest Sprague, twenty-six, a fourth-class fireman in the Metropolitan Fire Brigade, who was killed by the collapse of some house property after an explosion in New Church-court, Strand, on October 29. Mr. Glenn explained that Sir John Hutton was the freeholder of No. 26 and the leaseholder of No. 27, and both the houses were sublet by him on repairing leases. Sir John wished to express his deep regret at the sad calamity, and to afford every assistance in the inquiry. The Gas Light and Coke Company and the New River Company were also represented. In the course of the evidence, Mr. W. G. Perkins, surveyor, of the Architects' Department of the London County Council, produced a plan of the remains of the building. He said the width of the walls was 14 in., and they were composed of placed bricks, that was bricks that had not been properly burned and were porous; the mortar was quite rotten, and had no adhesive qualities whatever. The houses in the court were about one hundred years old. Thomas Hawkins, a builder, of Judd-street, Brunswick-square, stated that about two years ago, in accordance with the instructions of Mr. Collard, architect to the owner of the property (Sir John Hutton), he put the house into repair according to a specification. He then took the houses over under an agreement, and let them out. In reply to Mr. Glenn, witness said that the cost of repairing the two houses was 244*l.* He was paid that amount, and then took over the houses. They were then in a good habitable state of repair. He saw the houses a fortnight ago, and he did not notice any smell of gas. The inquiry was adjourned for a fortnight.

SANITARY INSPECTORS' EXAMINATION, ABERDEEN.—An examination for persons qualifying for the office of Sanitary Inspector has just been held in Marischal College, Aberdeen, under the auspices of the Sanitary Association of Scotland. There were nine candidates. The examiners were Dr. Nasmyth, Fife; Dr. Macvail, Dumbarton; Mr. Mathison, Burgh Engineer, Dundee; and Mr. Allan, Burgh Surveyor, Govan.

CAIRO AT BERLIN.—At the Industrial Exhibition at Berlin next year there is to be a reproduction of Cairo, or a portion of it, under the superintendence of a Berlin architect, Herr Wolgemuth. The Berlin Cairo is to greatly surpass the Paris Cairo of 1889 in extent and pretension. It is to include the mosque of Kail Bey and tombs of the Caliphs, not to speak of a colossal Sphinx, "a prosperous village of fellahs," and the engagement of 400 Arabs to take part in the pageants and spectacles.

PROFESSOR H. ADAMS ON WIND PRESSURE.—On October 30, at the first meeting for the session of the City of London College Science Society, Professor Henry Adams, M.Inst.C.E., one of the Vice-Presidents, read a paper on "The Force of the Wind." After reviewing a number of the recorded experiments on wind pressure, he tabulated

the results upon a common basis to show that within certain limits the intensity of the pressure increased with the area of the receiving surface, but over large areas the maximum was not reached in practice owing to the wind moving in concentrated gusts. An account was given of the pressure said to have been reached in various historical gales, and extracts from various standard works as to the proper pressure to be estimated for in designing structures. In conclusion he suggested that, although 56 lbs. per square foot might be looked upon as the standard, this should be modified according to the circumstances of the case, viz., with the height from ground level, the unsupported width and the angle of incidence. The pressure according to the table submitted varied from 16 lbs. at ground level to 80 lbs. at a height of 200 ft., and in the latter case from 80 lbs. at a width of 10 ft. to 40 lbs. at a width of 1,000 ft., while the multiplier for angle varied from ·45 at 5 deg. to 1·00 at 60 to 90 deg.

THE COMMISSIONERS OF SEWERS.—A statement of a serious character was made by Dr. Sedgwick Saunders, the Medical Officer of Health to the City, to the Commissioners of Sewers, at the meeting held on Tuesday. He said no provision existed in the City for the isolation of persons suffering from infectious diseases. In some cases, patients were not removed until they were in a moribund condition. In subsequently replying to a statement by Mr. Deputy White as to the obligation of the Commissioners to provide the necessary accommodation, the Medical Officer of Health said the Commission being the Local Authority, they were bound to provide a hospital for the treatment of such cases, instancing the case of Eastbourne, which had recently done so. The Medical Officer having repeated that employers were morally bound to make some accommodation for their *employés* in case of need, the matter was referred to the Sanitary Committee.

ANTIQUARIAN DISCOVERIES, CAMBRIDGE.—Some antiquarian discoveries have recently been made in connexion with the sewerage operations in Jesus-lane. About 8 ft. below the surface of the road, near the gate of Jesus College, seven fairly complete skeletons were found. Fragments both of Saxon and Roman pottery have been found in this cutting, as well as large quantities of masonry. The masonry was found about 4 ft. below the surface of the road.

MEMORIAL PILLAR, CROWTHORNE, BERKSHIRE.—A memorial has just been placed over the remains of the late wife of Mr. H. G. Armstrong, of Heathcote, Wellington College, in the graveyard of the church of St. John Baptist at Crowthorne. The pillar is a monolith of grey granite. It assumes the form of a "four-holed" west-country cross, moulded upon the upper part. Messrs. Harry Hems & Sons, of Exeter, carried out the work.

ALTAR, CHRIST CHURCH, WORTHING.—The new altar at Christ Church, Worthing, is of Early English character, designed by Mr. R. Singer Hyde, architect, of Worthing. Its length is 7 ft., and in height and width it is 3 ft. It is made of English oak. Upon the upper face of the table are inscribed the five consecration crosses. The front, facing west, is divided into three distinct compartments. The work has been carried out by Messrs. Harry Hems & Sons, of Exeter.

THE ARTISTS' GUILD.—On the 4th inst., Princess Christian opened, at the Royal Albert Hall, the Seventh Annual Amateur Art Exhibition of the Artists' Guild. The articles exhibited include embroidery, painting, photography, wood-carving, leather work, and work in metals.

ARTS AND CRAFTS EXHIBITION, DUBLIN.—An Arts and Crafts Exhibition, Dublin, will be held at the Royal University Buildings on the 26th inst. The fundamental object of the exhibition is to stimulate and encourage native skill.

PULPIT, ALL SAINTS' CHURCH, FALMOUTH.—The new pulpit in All Saints' Church, Falmouth, has just been dedicated. Standing on a stone platform, the pulpit, with its circular front, is supported by a large Devon green marble shaft, surrounded by seven different coloured marble shafts, some twisted, others octagonal and circular, The body is formed of Derbyshire alabaster, inlaid with slabs of Devon marble of different shades, while the circular front has a floriated cross of white marble on a background of red marble. On either side are two figures, St. George and St. Piran, carved in Italian white alabaster. Messrs. J. and E. Goad, of Plymouth Phœnix Marble Works, have executed the work to the plans of Mr. Sedding (Plymouth).

EPPING FOREST MUSEUM.—The Essex Field Club have just established the Epping Forest free local Museum, which was opened on Saturday last. The museum is situated at the Queen Elizabeth's hunting-lodge, adjoining the Forest Hotel at Chingford. The museum is designed and arranged to illustrate the natural history, archæology, and history of the district. Mr. William Cole is the honorary curator. On the walls of the ancient staircase are maps and views, geological sections, and plans of the Forest.

NATIONAL REGISTRATION OF PLUMBERS.—An examination of master and operative plumbers was held on Saturday last at the Borough-road Polytechnic. Candidates were present from various parts of London and the provinces. The examiners were Mr. Charles Hudson, chairman; Messrs. J. Hume and S. Stalder, master plumbers; Messrs. D. Early, W. J. Jarvis, and T. Nicholson, representatives of the operatives; and Mr. C. T. Millis, superintendent of the trade classes. Fourteen per cent. of the masters and eighteen of the operatives passed in practical work.

THE CORDWAINERS COMPANY.—At the Court of the Worshipful Company of Cordwainers held on the 6th inst. at their Hall in Cannon-street, Mr. Howard Chatfeild Clarke was appointed Surveyor to the Company.

LONDON WATER-SUPPLY.—Colonel Ducat, R.E., opened an inquiry on the 31st ult., at the Guildhall, Westminster, on behalf of the Local Government Board, into the supply of water for sanitary purposes in the metropolis. The inquiry was the outcome of a report presented to the London County Council a year ago by its Public Health and Housing Committee, which stated that the by-laws of the eight water companies who supplied the metropolitan area should be amended, so as to give a greater supply of water for sanitary purposes. Acting on this report, the Council had asked the companies to comply with its recommendations. This they had refused to do, and hence the present inquiry. Mr. F. M. Freeman represented the County Council; and Mr. Pember, Q.C., Mr. C. A. Cripps. Q.C., M.P., and Mr. Richards the eight associated water companies. — Mr. Freeman, in opening the case for the County Council, gave an account of the Acts which at present governed the Metropolitan water supply, and said that under the Act of 1871 the County Council, as the central authority, was empowered to make certain demands on the companies. If these demands were not complied with, the Council had power to ask for a Government inquiry. The present regulations were drawn up in 1872, but they had become defective as far as sanitary requirements were concerned, for very considerable advances had been made in sanitation generally, and regulations which might have been perfectly adequate twenty-three years ago, had now become altogether inadequate. The matter was brought before the Council by the Vestry of St. Giles in 1892. Communications had since been received from almost every Vestry and Board of Works in the Metropolis, all endorsing the view that the present flush of water for closets was inadequate. This view had been endorsed by the Medical Officer, the Engineer, and the Superintendent Architect of the County Council, who would all be called as witnesses. The companies had demurred to the carrying out of the Council's demands on the ground of expense; he (Mr. Freeman) thought their fears were exaggerated, but it was only reasonable and proper that they should be called upon to make such alterations as were consistent with the health of the people and the sanitary experience of the time.—Mr. C. F. Doll, architect and surveyor to the St. Giles's Board of Works, examined by Mr. Freeman, said that the present flush of two gallons was inadequate, and should be increased to three.—Mr. W. J. Berry, surveyor of the Estates and Valuation Department of the Council, said he had charge of the artisans' dwellings erected by the Council. He compared blocks of buildings where there were two-gallon cisterns with those where there were three-gallon cisterns. In Yabsley-street, Poplar, they had a block of buildings belonging to the first class, and in Brook-street, Ratcliff, another belonging to the second. The fittings were the same in each case. In the first case they had been called to attend twenty-one blocks of closets during the past seven months. During the past twelve months there had not been a single similar complaint from the Brook-street buildings.—Dr. Sykes, medical officer of health for the parish of St. Pancras, did not consider that the two-gallon flow, at present given by the water companies, was sufficient. A three-gallon flush would be beneficial in clearing the closet, the trap, and the drain. There would be an actual saving of water with a three-gallon flush, because instead of closets being flushed twice, one flushing would suffice.—Cross-examined by Mr. Pember: The imperfection of the flush was due to the want of water, and not to imperfection of fittings. The regulations laid down by the water companies might prevent waste of water, but it was at the expense of the health of the public. He had no statistics to prove this last statement.—Mr. Samuel Buck and Mr. P. Lebran, London County Council Superintendents, corroborated Mr. Berry's statements.—Mr. Binnie, Chief Engineer to the Council, examined by Mr. Freeman, said he was of opinion that for the protection of public health it was absolutely necessary that cisterns having a capacity of three gallons should be provided in every closet. Cross-examined by Mr. Pember: He was not aware of more than three towns in which this was the case. Nevertheless, he was strongly of opinion that it was necessary for health.—The inquiry was adjourned until the following day, when additional witnesses were called on behalf of the Council. Dr. Murphy, Medical Officer of Health for the Administrative County of London, considered three gallons essential; Mr. William Groom, sanitary inspector to the Camberwell Vestry, thought two gallons insufficient, and said the defective supply had caused great inconvenience in his district; Mr. T. Blashill, Superintendent Architect of the Council; Mr. K. Young, C.E.; Mr. J. W. Clark, Liveryman of the Company of Plumbers and Member of the Sanitary Institute; and Mr. T. Field, Member of the Council of Civil Engineers and that of the Sanitary Institute, also gave evidence in support of the proposed increase of water supply for sanitary purposes in private dwellings.—The inquiry was adjourned until Monday, when Dr. Parkes, Medical Officer of Health for Chelsea, and Professor Henry Robinson, Professor of Civil Engineering at King's College, London, both expressed the opinion that the existing flush of two gallons was insufficient.—Mr. Edward M. Eliot, C.E., Chief Engineer to the Sheffield Waterworks, was the first witness called for the water companies. He asserted that in that town a flush of two gallons was deemed quite adequate. There had been complaints, but none of them were properly attributable to deficient flush. The increase proposed by the London County Council would involve a heavy charge on the water companies.—Mr. Ernest Collins, M.Inst.C.E., and Engineer to the New River Company, said he had been connected with that company for fifteen years; that the company's water rental was derived from 160,000 houses, and that he considered the two gallons sufficient if properly discharged. He suggested that the bath waste might be utilised, under proper precautions, for flushing and sanitary purposes. If the sanitary authorities had seen better to the fittings, he thought this inquiry would not have arisen. The existing three-gallon flushes were comparatively few. The effect of an enforced increase of flush, as proposed by the London County Council, would be to entail on the New River Company an additional supply of 2,400,000 gallons per day, and on the London Water Companies as a whole an increase of about 12,000,000 gallons per day. He thought that was a very moderate computation. He was of opinion that the whole of this controversy had come about through the use of improper fittings, not only in design but in manufacture; and that the water companies, for the protection of themselves and the public, ought to have regulations which would enable them to examine and test the fittings. A great many of the provincial towns had such powers, and the water companies ought to have them in London. They ought to have a revision of the whole regulations, not only as regarded the two-gallon flush, but in other ways, so that the fittings, which were generally put up at the cheapest rate, might be brought under proper control.—Cross-examined by Mr. Freeman, the witness said he had not in terms suggested to the companies that application should be made for such powers, but had put it in a form that their regulations ought to be strengthened.—The inquiry was again adjourned.

## *CAPITAL AND LABOUR.*

SUB-CONTRACTING AND GOVERNMENT CONTRACTS.—Mr. Joseph Verdon and Mr. D. Henessey have had an interview with Mr. Akers-Douglas, the First Commissioner of Works, on behalf of the London Building Trades' Federation, with reference to the question of sub-contracting on Government contracts. It was pointed out to the First Commissioner that certain firms were getting their work done by sub-contractors under the guise of foremen; and he has, we understand, agreed to insert a new clause in the contracts requiring the contractor to provide competent foremen, who shall be in his exclusive employ, to superintend the execution of the works on his behalf, and no charge shall be allowed for this, either in measured or day-work.

GLASGOW BUILDING TRADES' EXCHANGE.—The annual general meeting in connexion with the Building Trades' Exchange of the City and District of Glasgow, Limited, was held on the 30th ult., in the rooms, 30, Gordon-street—Colonel R. J. Bennett presiding. The Secretary (Mr. Cook) submitted the annual report. The Exchange had been in existence, it stated, for eighteen months. The shareholders now numbered seventy, holding among them 280 shares. During the year 109 subscribers had joined, making a total of 248. The rooms had been largely taken advantage of by the various masters' associations for meetings, over eighty having been held during the twelve months to September 30. The trades represented were the painters, plasterers, slaters, brickbuilders, plumbers, glaziers, and the Institute of Measurers. Since September 30, meetings had been on the increase. A joint committee had been engaged in promoting a scheme of monthly meetings of the whole Exchange, when papers on subjects of interest to the trades may be read by members and discussed. By this means the chief object of the Exchange—viz., to promote the best interests of the building trades—would be forwarded. The same joint committee had also been considering a scheme for the formation of a library in the Exchange, which should contain, as far as possible, the complete catalogues of all the principal manufacturers of goods or material pertaining in any way to the building trades. The Arbitration Committee had not been unduly called upon to exercise their functions.—The Chairman, in moving the adoption of the report, said the Exchange had fully

justified its existence. During the year they had been so far successful in bringing together a large number of the best tradesmen in Glasgow, thus enabling them to meet oftener as friends, and reducing the friction which naturally arose through the various trades. Through the medium of the Exchange they had done more in the way of conciliation than could have been done in any other town in the country. Ex-Councillor John Paterson seconded, and the report was confirmed. The retiring members of the Executive Council—Sir William Arrol, M.P., Colonel R. J. Bennett, Messrs. Andrew Gray, James Brand, James Goldie, Matthew Henderson, and John Porter—were re-elected, and Messrs. Paterson and Benzie were appointed auditors. A vote of thanks having been passed to the Chairman, the meeting separated.

CROYDON AND DISTRICT MASTER BUILDERS' ASSOCIATION.—The members of this Association held their annual meeting on the 1st inst. The committee reported that in the early part of this year the Carpenters' and Joiners' Societies gave notice of their intention to enforce the London Labour Trades Federation rules. Subsequently a strike ensued, and picketting had been resorted to on the principal works throughout the town, with but little inconvenience to the trade generally. The strike was now practically at an end, having failed in its object. The meeting then proceeded to elect officers and committee for the ensuing year, Mr. M. Taylor, C.C., being elected President, Mr. S. Page, Vice-President, and a committee of twelve. It was also arranged that the annual dinner should be held early in the new year.

## *LEGAL.*

### BUILDING CASE IN THE QUEEN'S BENCH DIVISION.

THE case of Macrory *v.* Gibbon came before Mr. Justice Wright, sitting without a jury, on the 1st inst., it being an action brought by Mr. Edmund Macrory, Q.C., the owner of a leasehold house, No. 2, Ilchester Gardens, W., against the defendant, Mr. Henry Gibbon, the owner of a block of residential flats in Moscow-road, W., for the alleged breach of an agreement.

It appeared that the plaintiff purchased his house in Ilchester Gardens in 1872, and lived there until four years ago, since which it had been to let. When the house was bought, and down to within the last year or two, there were only small cottages in the Moscow-road, and although the kitchen, which was at the back, was always dark, the buildings in the Moscow-road in no way affected the light of the plaintiff's back premises. The defendant, the lease of the cottages having fallen in, purchased the land and commenced building the flats in question. Mr. Macrory and a neighbour, Mr. Heath, when they discovered that a part of the new buildings came so close up at the back as seriously to interfere with their light and air, entered into a correspondence with the defendant, alleging that he was encroaching on their rights. The defendant denied that, but, as a compromise, an agreement was finally entered into between the plaintiff, Mr. Heath, and the defendant, on September 12, 1894, clearly defining, as it was thought, within what lines the new buildings, which by that time had been got on with a good way, should be confined. By the agreement the defendant undertook not to build in such a way as to prevent the plaintiff, if he thought proper, opening windows overlooking the defendant's well. The plaintiff considered that this gave him a right to open a new window in the kitchen, which he had long intended to do, overlooking the defendant's area or well, which owing to the way the building had been erected, it was found could not now be done. The defendant contended that having regard to the height of the buildings at the time, such a construction could not be placed on the agreement, and also that there was no agreement at all on his part that the "well" should be open from the ground, and, further, that the buildings were exactly in accordance with plans that had been shown to the plaintiff's solicitor when the agreement was made. His Lordship remarked, in the course of the arguments of counsel, that supposing the Court held that the true construction of the agreement was that contended for by the plaintiff, he failed to see in what better position he would be. He (his Lordship) could only order a peremptory *mandamus* to pull down the projecting part of the building or give damages, and he doubted if any damages he could give would compensate the plaintiff.

Mr. Bucknill, Q.C., who appeared with Mr. Manisty, for the plaintiff, said that the mischief had been done, and he was afraid it was hopeless to suggest that the defendant should buy the house, as terms could not be agreed upon.

Mr. Alfred Cock, Q.C., who appeared with Mr. Munroe, for the defendant, said that if his Lordship decided the agreement against his client he would rather pull down than go to the expense of an inquiry as to depreciation.

The learned Judge ultimately gave judgment for the plaintiff, holding that the true construction of the agreement was that contended for by him. With the consent of all parties his Lordship directed that that part of the building in dispute should be pulled down within three months unless an appeal were entered within the usual time, when the order should stand over pending the judgment of the Court of Appeal.

### APPEAL CASE UNDER THE BUILDING ACT.

AT the Westminster Police-court on Friday in last week Mr. de Rutzen gave his decision on an appeal under Section 150 of the Building Act of 1894 against a notice of objection given by Mr. E. Dru-Drury, District Surveyor, St. Margaret and St. John the Evangelist, Westminster, as to a wall in course of erection by builders for the Army and Navy Auxiliary Stores for the extension of their premises in Coburg-row, Westminster. The question involved was as to whether the wall could be, for some part of its height, a party-wall, and as to the remainder an external wall. On the result the right of making certain openings depended.

Mr. T. Seager Barry argued the case for the London County Council, and Mr. R. Cunningham Glen for the Auxiliary Stores.

Mr. de Rutzen decided the case in favour of the appellants, the Auxiliary Stores.

Mr. Seager Barry said that probably the County Council would appeal on a case stated.

The magistrate said he had no wish to discourage an appeal, but as that would add to the expense he would allow appellants twenty guineas costs.

### THE STRAND EXPLOSION.

ON Friday last week, at Bow-street, the owners of Nos. 25, 26, and 27, New Church-court, Strand, were summoned by the London County Council to show cause why they should not pull down those portions of their premises now standing.

Mr. Chilvers, who appeared on behalf of the Council, explained that the houses in question were those affected by the recent explosion. The men declined to shore up the adjoining property until the rotten walls had been demolished.

Mr. Frederick William Porter, District Surveyor of St. Mary-le-Strand, stated that the workmen commenced operations on the morning following the explosion, but it was found impossible to shore up whilst the damaged walls were standing. It was impossible to repair either of the houses. The safest course was to pull them down.

Mr. Barnett said his client offered no objection, and the magistrate made an order calling upon the owner to pull down the building forthwith.

### A QUESTION OF DRAINAGE.

AT the Lambeth Police-court on Monday, Mr. Hopkins delivered judgment in a case of considerable interest to parochial authorities. The Vestry of St. Mary, Newington, were summoned by Mr. Harry Richardson, of Finsbury-square, for neglecting to repair and amend a certain sewer, draining several houses in Gurney-street, Newington.

Mr. Blanchensee appeared in support of the summons, and Mr. Moreton Smith represented the Vestry.

The complainant is the leaseholder of the houses in question, which are drained by a combined operation, several houses being served by the same pipe connexion with the sewer in the roadway. It was contended on behalf of the complainant that this being a combined drain—to the construction of which the consent of the Local Authority had never been given—the Vestry were, under recent decisions, liable for its repair. These proceedings were taken under Section 12 of the Public Health (London) Act, 1891.

On behalf of the Vestry, Mr. Moreton Smith contended that the onus of showing that the drain was constructed illegally—that was to say, without the consent of the Local Authority—was upon the complainant. He also submitted that the Vestry could not be proceeded against under this section of the Act, and remarked that since the decision in the case of "Kershaw *v.* Taylor," owners of this class of property had been trying to take advantage of the decision by throwing the onus of putting their property in a proper state upon the Vestry.

Mr. Hopkins observed that the first question which arose in the case was whether or not this was a sewer or whether it was only a drain. Looking at the pipe itself, quite apart from any question arising under the statutes, he came to the conclusion that this was a sewer common to all the houses. It might be shown, if certain things could be proved, that this pipe instead of being a sewer was a drain in consequence of the arrangements made with the owner of the property at the time the pipe was laid. None of these things had been proved, and the question was whose business was it to prove it? He thought the onus was upon the Vestry, who had all the papers relating to the matter under their control, and who ought to be able to show whether certain consents were given. There was another point in the case that had given him a great deal of trouble—the point that the Public Health Act, 1891, provides no machinery by which the Sanitary Authority can be compelled to keep their sewers in order. He had searched the Act through without being able to discover any sort of machinery which compelled the Vestry to keep their sewers in order. The whole of the statute, from beginning to end, looked upon the Vestry as the complainants. There was no process short of indictment by which the Vestry, upon whom, so far as he understood the statute, the burden of keeping this pipe in repair fell, could be compelled to repair its sewers. He did not think he could make any order under this statute to compel the Vestry to repair this pipe, and the summons would therefore be dismissed.

His Worship declined to allow the Vestry costs as against the complainant, remarking that upon the facts he was against them.

### BUILDING BY-LAWS, BARRY.

AT Barry Police-court on Monday, says the *Western Mail* (before Major-General Lee and Mr. Lowdon) the Barry Urban District Council charged Mr. James Price, baker and confectioner, Holton-road, Barry Dock, with an infringement of the by-laws of the Council. Mr. J. Arthur Hughes, Cadoxton, the Clerk and Solicitor to the District Council, appeared for the prosecution, and Mr. George David, solicitor, Cardiff, defended.

Mr. Hughes explained that the proceedings were taken under By-law 54 of the Public Health Act, in which it was stated there should be a clear space of not less than 15 ft. at the back of a building 25 ft. high. In March, 1894, plans were sent in by Mr. Price of stables to be erected at the back of his premises. These were, however, amended, to provide for a portion of the building then erected being set back, so as to allow the required 15 ft. lateral area. Mr. Price had also signed the plan agreeing to carry out this work. No summons was taken out by the Council when the stable was being erected, because they relied upon Mr. Price's promise.

For the defence, Mr. David maintained that the case was not proved, because the original plan was not produced.

Mr. Hughes pointed out, in reply, that two plans were sent to the counsel, one being kept and the other sent back to the builder.

Mr. J. C. Pardoe, surveyor, and Mr. W. Wakeham, building inspector, were examined, the former proving that the lateral space in question was two feet less than the law required.

Mr. David contended that there was no case against his client, inasmuch as proceedings had not been taken within six months, as required by the Act. Mr. Hughes replied that he could prove that the building had not been finished in May last.

The Bench upheld the point raised by Mr. David, and dismissed the summons, but consented, on the application of Mr. Hughes, to state a case, the latter remarking that the Council considered the point an important one, and desired to have it fully cleared up.

—The Barry District Council have also summoned Mr. J. P. Harding, builder, Barry, for infringement of by-laws by allowing certain houses in Holton-street and Princes-street to be occupied without having the same certified by the surveyor as fit for occupation; and Mr. B. Hoddinott, Witchill Hotel, Cadoxton, was charged with neglecting to fence in a quarry, his property, off Barry-road. Mr. J. A. Hughes appeared for the prosecution in both cases, and Harding was fined 20s. and costs, and Hoddinott ordered to carry out the work and pay the costs.

## MEETINGS.

FRIDAY, NOVEMBER 8.

*Architectural Association.*—Mr. Talfourd Ely, M.A., on "Pompeii"—with lantern illustrations. 7.30 p.m.

*Sanitary Institute (Lectures for Sanitary Officers).*—Professor T. Roger Smith on "Sanitary Building Construction." 8 p.m.

SATURDAY, NOVEMBER 9.

*Sanitary Institute (Lectures for Sanitary Officers).*—Visit to the Sewage and Destructor Works, Ealing. 2.15 p.m.

MONDAY, NOVEMBER 11.

*Surveyors' Institution.*—The President, Mr. Daniel Watney, will deliver an Opening Address. 8 p.m.

*Clerks of Works' Association (Carpenters' Hall).*—Paper by Mr. H. J. Harding. 7.30 p.m.

*Liverpool Architectural Society.*—Mr. R. Anning Bell on "The Training of Workers in the Applied Arts." 6.30 p.m.

TUESDAY, NOVEMBER 12.

*Institution of Civil Engineers.*—Address by Sir Benjamin Baker, K.C.M.G., the President, and Presentation of Medals, Premiums, and Prizes awarded at the close of last Session. 8 p.m.

*Sanitary Institute (Lectures for Sanitary Officers).*—Mr. J. Wright Clarke on "Details of Plumbers' Work." 8 p.m.

*Carlisle Architectural, Engineering, and Surveying Society.*—Mr. C. Lonsdale on "Chippendale, Heppelwhite, and Sheraton." 8 p.m.

WEDNESDAY, NOVEMBER 13.

*Architectural Association Camera Club.*—Mr. C. H. Freeman on "Canterbury Cathedral," illustrated by lantern views. 8 p.m.

*Carpenters' Hall, London Wall (Lectures on Building and Sanitary Construction).*—Professor Banister Fletcher on "Sanitary Construction." 8 p.m.

*Sanitary Institute (Lectures for Sanitary Officers).*—Inspection of the L.C.C. Common Lodging-House, Parker-street, Drury-lane. 3 p.m.

*Liverpool Engineering Society.*—Mr. W. G. Scott on "A Locomotive Depôt for the Accommodation of 180 Engines and Tenders." 8 p.m.

*Northern Architectural Association.*—Address by the President, Mr. J. Oswald. 7.30 p.m.

FRIDAY, NOVEMBER 15.

*Sanitary Institute (Lectures for Sanitary Officers).*—Mr. W. C. Tyndale on "House Drainage." 8 p.m.

# COMPETITION, CONTRACTS, AND PUBLIC APPOINTMENTS.

## COMPETITION.

| Nature of Work. | By whom Advertised. | Premiums. | Designs to be delivered. |
|---|---|---|---|
| *Home for Nurses | Bradford Union | 20*l.* 15*l.* & 10*l.* | Dec. 3 |
| Sewerage Scheme | Rugeley U.D.C. | 50 Guineas | Dec. 14 |

## CONTRACTS.

| Nature of Work or Materials. | By whom Required. | Architect, Surveyor, or Engineer. | Tenders to be delivered. |
|---|---|---|---|
| Rebuilding Schools, Hamstead Marshall, Berks | ..... | J. H. Money | Nov. 11 |
| Pavilion, Llandudno | Welsh National Eisteddfod | Darbyshire & Smith | Nov. 12 |
| Farm Buildings, Stubbin's Farm, Ogwell | D. R. Scratton | Rendell & Symon | do. |
| Private Street Improvements | Southampton Corp. | W. B. G. Bennett | do. |
| Sewerage Works | Atherton(Lancs)U.D.C | Newton & Son | do. |
| Church Enlargement, Holy Trinity, Llandrindod Wells | ..... | Nicholson & Hartree | do. |
| Five Houses and Three Shops, Penrhiwceiber, Wales | ..... | S. Rooney | do. |
| Brick Invert Sewer | Bingley (Yorks)U.D.C. | *Official* | do. |
| Sewering and Paving, Walmsley-street | Rishton (Lancs) U.D.C. | do. | Nov. 13 |
| *Boring Artesian Well, Supplying Pumps, &c. | Amersham, &c. Waterworks Co | E. A. S. Fawcett | do |
| *Making-up and Paving Road | Fulham Vestry | C. Botterill | do. |
| Pipe Sewer (2,240 ft.) | Croydon R.D.C. | R. M. Chart | do. |
| Sewerage Works, Browfoot Gate-lane | Halifax Corporation | E. R. S. Escott | do. |
| Seven Houses, Princess-street, Barnsley | ..... | Wade & Turner | do. |
| Building Work at the Workhouse | Cardiff Union | E. Seward | Nov. 14 |
| Sewers (6,450 yds.) | Oxenhope(Yorks)U.D.C | Barber, Hopkinson, & Co. | do. |
| Warehouse, Western Point Works, near Runcorn | Salt Union, Lim. | *Official* | do. |
| Road Works, Fairmile-road | Christchurch Union | do. | Nov. 15 |
| Paving, Channelling, Flagging, &c. Hermon-street | Preston (Lancs) Corp. | do. | do. |
| Six Houses, Purlwell Hall-road, Batley, Yorks | Co-op. Soc. | H. B Buckley | do. |
| Schools, Bangor, Ireland | W. Hanna | ..... | do. |
| Hotel, Port Talbot, Wales | ..... | G. Thomas | do. |

## CONTRACTS—*Continued.*

| Nature of Work or Materials. | By whom Required. | Architect, Surveyor, or Engineer. | Tenders to be delivered |
|---|---|---|---|
| Chapel, Vestry, &c. Porth, Glam. | Salem Welsh Baptist Church Committee | ..... | Nov. 15 |
| *Machinery, &c. for Waterworks | Huntingdon Corp. | R. E. Middleton | do. |
| Sewerage Works (24 miles) | Swadlincote U.D.C. | A. Marshall | Nov. 18 |
| *Pulling-down of Buildings | Rotherhithe Vestry | *Official* | do. |
| Flagging, &c. Atlas-road | Bootle Corp. | do. | do. |
| *Fitting and Furnishing Public Library | Tottenham U.D.C. | do. | Nov. 19 |
| *Supply of Stores | L. G. O. Co. Lim. | do. | Nov. 21 |
| *Paving Works | Walthamstow U.D.C. | G. W. Holmes | Nov. 22 |
| *Sewers, Drainage, &c. Works, Clacton-on-Sea | C. G. Rounds' Trustees | T. H. Baker | Nov. 23 |
| Brick Sewer, near Bury Bridge | Bury (Lancs) Corp. | J. Cartwright | Nov. 25 |
| Additions, &c. to Cromwell House, Commercial-road | Guildford R.D.C. | A. J. Sturgess | Nov. 28 |
| *Laying Water Mains, &c. | Lathom, &c. U.D.C. | Wood & Brodie | do. |
| *Cast Iron Water Pipes | do. | do. | do. |
| Additions to Schools | Pirbright Sch. Bd. (Surrey) | Welman & Street | do. |
| Paving Works, Upper North-street | Luton Town Council | *Official* | do. |
| *Alterations, Fulham Sub-station | LondonCountyCouncil | do. | do. |
| Kerbing, Metalling, &c. Manselton, Swansea | A. Young | ..... | Nov. 27 |
| Mill, Weaving Shed, &c. Leeds-road, Huddersfield | ..... | J. Kirk & Sons | Nov. 28 |
| *Erection of School Buildings | West Ham Sch. Bd. | Newman & Jacques | Dec. 3 |
| *School, Portmadoc | The Local Governing Body | W. H. Dashwood Caple | Dec. 10 |
| House, Shop, &c. Starbeck, Harrowgate | J. W. Crowther | A. A. Gibson | No date |
| Villa, Mottram-road, Stalybridge | ..... | T. D. Lindley | do. |
| Church Superstructure (St. Alban's), Burnley | ..... | M. Taylor | do. |
| Hotel, Dunbar, N.B. | ..... | Dunn & Findlay | do. |
| Congregational Church, Windsor-road, Penarth | ..... | Habershon & Fawckner | do. |

## PUBLIC APPOINTMENTS.

| Nature of Appointment. | By whom Advertised. | Salary. | Applications to be in. |
|---|---|---|---|
| *Surveyor and Inspector of Nuisances | Hoddesdon U.D.C. | 120*l.* | Nov 21. |

*Those marked with an asterisk (*) are advertised in this Number.* *Competition, p.* iv. *Contracts, pp.* iv., vi., viii., & xviii. *Public Appointments, p.* xvi.

## RECENT PATENTS:

### ABSTRACTS OF SPECIFICATIONS.

19,182. — WATER-CLOSETS: *H. Dakin.* — In water-closets of the wash-down type the outlet is screwed either externally or internally, and connected to the outlet bend or waste-pipe by a union joint, the joint being arranged below the water-level in the trap, preventing the escape of sewer-gas, &c. In syphon closets a trapped union branch connects the flush-pipe with the longer leg of the syphon outlet, and has a detachable T piece for connexion to vent-pipe.

22,689. — WINDOW-FASTENER: *F. Banting.* — The subject of this patent is a window-fastener for sliding window-sashes consisting of a block or tumbler, supported upon pivotted slots, and arranged in such a manner that its lower or upper end can come in contact with a striking plate on the meeting rail of the lower sash.

23,116.—CHIMNEY-COWL: *E. Pearson.*—This patent relates to an improved ventilator cowl for chimneys. The cowl is mounted to rotate on roller bearings external of the base, and consists of an upright cylindrical portion surmounted by a tubular portion which is nearly horizontal, or inclined upwards at a slight angle. It is provided with a vane, and has an aperture for the admission of air which is always presented to the wind. A partition divides the interior of the cowl for a part of its length into separate passages for the smoke and air, the latter mingling with the former at the exit end.

24,128.—WINDOWS: *J. Barton.* — Supplying a hinge-action for sash-windows to facilitate cleaning, &c. The loose flaps of a "butt" hinge are so constructed that one of them may be permanently fastened in the groove of the sash-frame, with the pin joint projecting outside the inner bead rail. The other flap, which is made smaller, and capable of free axial motion, is provided with a tongue projecting upwards. A plate, having a protruding slotted piece, is fixed to the sash, and may obviously be connected to the pivoted hinge-flap when desired. A pair of these hinges are used for each sash.

1,184.—FLOOR DOOR-SPRINGS: *G. Newman.*—For preventing corrosion of the mechanism in floor door-springs and checks, caused by the incursion of wet or moisture into the works or interior parts. A box for containing the apparatus is made watertight by interlocating between the flange of the box and the cover-plate an insertioned watertight packing.

11,536.—GATES: *E. Evans.*—A gate consisting of a horizontal bar from which is suspended a number of vertical and horizontal chains crossing each other and forming a flexible body. The bar and combination of chains are connected to the hinge-post, the gate being fastened at the opposite end, when closed, by two vertical locking-bars hinged to opposite sides of the latch-post. A chain is also suspended from the hinge post, which is made higher than usual, and helps to support the gate.

14,259.—JOINER'S BENCHES: *R. Freeman and another.* —Refers to methods of adjusting bench-stops by means of a cam which is pivoted to the end of the bench with its periphery under the lower end of the bench-stop, which is made to move freely through the bench, so that when the cam is rotated by a suitable handle the upper end of the stop is raised to any desired height above the bench.

### NEW APPLICATIONS FOR LETTERS PATENT.

OCTOBER 21.—19,706, J. Whipp, Ventilator for dwelling-houses and other buildings.—19,733, J. Tompkins and others, Machines for grinding cement.—19,755, W. Willis, Flushing Cisterns.

OCTOBER 22.—19,775, A. Studd, Appliance for fitting the cords of window-sashes.—19,790, H. Sutcliffe, Water-closet Cisterns.—19,831, W. Williams and H. Deffett & Co., Limited, New process for use in making cements.—19,868, D. Holland, Gully-traps, &c.—19,883, G. Yost, Window-fasteners.—19,884, H. Harrington, Window-locks.

OCTOBER 23.—19,902, G. Nightingale, Machine for cleaving and dividing rock, stone, &c.—19,933, A. Budden, Lock Knobs and Spindles.

OCTOBER 24. — 20,015, R. Cunliffe, Window Sash Fasteners.—20,027, E. Kendall, Window Sashes and Frames.—20,058, H. Cameron, Casement Stay and Fastener.—20,059, A. Moffatt, Automatic doors for closing the entrances to lifts.

OCTOBER 25.—20,100, J. Green and W. Oates, Latrine Water-closets.—20,103, E. Wood, Combined Coal Box or Boxes and Mantelpiece.—20,119, T. Hyatt, Pavements.—20,143, J. Anderson, Roofing-tiles.—20,151, A. Wright, Fireproof Floors and Ceilings.

OCTOBER 26.—20,191, E. Verity and B. Banks, Door-spring.—20,194, J. Lewis, Draught-preventer.—20,246, Count Adolphe De Saint-Marie and A. Hoffman, Treatment of Woods.

### PROVISIONAL SPECIFICATIONS ACCEPTED.

17,241, W. Ede-Clendinnen, Combined Portable Tip-basin and Frame.—17,887, A. Bückel, Bending Pipes.—18,173, R. Fritz and P. Job, Window. — 19,107, A. Gosling, Artificial Stone.—19,237, A. Tomlins, Jointed Weather Brick and Tile Combined.—19,286, J. Jackson, Preventing the Bursting of Service-pipes and Hot-water Boilers.—19,354, R. McMillen, Devices for Balancing and Locking Window-sashes.—19,356, E. Thomas, Continuous Kilns.—19,403, J. Boyd-Wilson, Bricks for Flooring and the like.—19,404, J. Boyd-Wilson, Flooring.

### COMPLETE SPECIFICATIONS ACCEPTED.

*(Open to Opposition for Two Months.)*

20,136, F. Hughes, Automatic Duplex Door-stop and Holdfast.—4,721, W. Simpson, Securing the Handles of Painting-brushes.—12,051, A. Franklin, Securing Door-handles.—17,360, W. Madans, Tiled Lath for Tiled Roofing.—17,751, C. Hofmann, Stoves.

## SOME RECENT SALES OF PROPERTY:

### ESTATE EXCHANGE REPORT.

OCTOBER 28.—By *Alfred Savill & Son:* "Fox Hall," Upminster, Essex, and 8 a. 0 r. 18 p., f., 2,000*l.*—By *P. Hodson:* 7, Chenies-st., Tottenham-ct.-rd., u.t. 12 yrs., g.r. 8*l.* 8s., 180*l.*; 41, Compton-st., King's-cross, u.t. 10 yrs., g.r. 25*l.*, 25*l.*; 40 and 45a, Hastings-st., u.t. 11 yrs., g.r. 28*l.* 8s., 73*l.*; 3 and 4, Gloucester-ter., Edmonton, u.t. 84 yrs., g.r. 3*l.*, 250*l.*; 9 and 10, York-pl., New Southgate, u.t. 63 yrs., g.r. 8*l.*, 185*l.*; 9, Pickering-st., Islington, u.t. 49 yrs., g.r. 6*l.*, 75*l.*; 15, Yerbury-rd., Holloway, u.t. 72 yrs., g.r. 7*l.* 10s., r. 40*l.*, 385*l.*; 2, Claremont, Wood Green, f., r. 34*l.*, 500*l.*; a plot of bldg. land, Colney Hatch-lane, Muswell-hill, f., 110*l.*—By *Nokes & Nokes:* 12, Sans-walk, Clerkenwell, f., r. 30*l.*, 450*l.*; f.g.r. 25*l.*, Woodstock-rd., Upton-pk., reversion in 74¾ yrs., 600*l.*—By *Purves & Curphey:* 34, St. John's-hill, Wandsworth, f., r. 50*l.*, 1,300*l.*

OCTOBER 29.—By *Charles & Tubbs:* F.g.r. 45*l.*, George-yd., St. Luke's, reversion in 80 yrs., 1,220*l.*—By *Osmond & Co.:* Two plots of bldg. land, Selsdon-rd., &c., Upton Pk., f., 70*l.*—By *Robins, Snell, & Gore:* A profit rental of 55*l.*, No. 209, Hampstead-rd., for 11½ yrs., 210*l.*—By *C. P. Whiteley:* F.g.r. 12*l.* 12s., Albion-st., Rotherhithe, reversion in 6½ yrs., 720*l.*; 1 and 3, Clutton-st., Bromley-by-Bow, f., r. 40*l.* 6s., 310*l.*; 24, Framfield-rd., Highbury, u.t. 97 yrs, g.r. 8*l.*, r. 40*l.*, 350*l.*—By *Wootton & Green:* 7, Merrick-sq., Southwark, u.t. 30 yrs., g.r. 5*l.*, e.r. 42*l.*, 375*l.*; 63 and 65, Black Lion Lane, Hammersmith, l., sold privately: 14, Soames-st., Peckham, u.t. 80½ yrs., g.r. 1d., r. 28*l.*, 270*l.*—By *Douglas Young* (at Winchester House): 11, 15, 25, 53, 61, 85 to 93 (odd), 97 to 109 (odd), 113 and 115, Hopton-rd., Streatham, f., r. 900*l.*, 11,910*l.*; "The Elms," "Clinton," and "Wheatley," Hopton-rd., and a plot of land adjoining, f., r. 270*l.*, 3,650*l.*; "Lindisfarne," Rutford-rd., f., r. 90*l.*, 1,050*l.*; seven freehold residences, Madeira-rd., r. 595*l.*, 6,400*l.*; 2, 10, 12, 16, and 18, Gleneldon-rd., f., r. 300*l.*, 3,510*l.*—By *R. Challinor* (at Beeston Castle): "Norbury Cottage," Bunbury, Cheshire, and enclosures, 30a. 1r. 35 p., f., 2,250*l.*; a freehold farm, Baddiley, Cheshire, two cottages and 19 a. 1r. 39 p., 1,640*l.*

OCTOBER 30.—By *Inman & Co.*: 10, Modena-st., Westbourne-pk., u.t. 72 yrs., g.r. 10s., 330*l.*—By *R. Tidy & Son*: a profit rental of 120*l.*, "Thornhill Arms," Caledonian-rd., u.t. 28¾ yrs., 1,910*l.*; 1 to 9 (odd), Wynford-rd., u.t. 28¾ yrs., g.r. 1*l.*, 560*l.*; 7, Ferntower-rd., Canonbury, u.t. 54 yrs, e.r. 45*l.*, 375*l.*—By *Weston & Sons*: 32 and 34, Kitson-rd., Camberwell, u.t. 62½ yrs., g.r. 13*l.*, r. 60*l.*, 580*l.*; 5, Burton-rd., Brixton, u.t. 40 yrs., g.r. 7s., e.r. 45*l.*, 450*l.*—By *J. T. Ayton*: 6 plots of land, Stanley-rd., Ilford, f., 132*l.*: 57 and 59, Weymouth-ter., Shoreditch, u.t. 18 yrs., g.r. 11*l.*, r. 72*l.*, 537*l.*; 13 and 15, St. Leonard's-rd., Poplar, u.t. 43¾ yrs., g.r. 6*l.* 6s, r. 66*l.*, 860*l.*: 17 to 25 odd, St. Leonard's-rd, f., r. 130*l.*, 1,375*l.*; 50 to 56 even, Martin-st., Stratford, f., r. 113*l.* 2s., 1,185*l.*—By *C. W. Davies*: 284, Essex-rd., Islington, l., sold privately; 12 and 14, Moreton-rd., Stamford Hill, u.t. 81 yrs., g.r. 7*l.*, r. 44*l.* 4s., 210*l.*; 9 to 14, Cranbrook-rd., Tottenham, u.t. 84 yrs., g.r. 18*l.*, 590*l.*; "Fairview Cottage," Foyle-rd., u.t. 83 yrs., g.r. 5*l.*, 100*l.*—By *E. W. Richardson & Son*: A freehold rent of 24*l.*, Boleyn-rd., Kingsland, reversion in 40 yrs., sold privately; 108 and 112, Marmont-rd., Peckham, u.t. 62 yrs., g.r. 14*l.*, 320*l.*; "Drayton Villa," Princes-rd., Buckhurst Hill, u.t. 71 yrs., g.r. 7*l.*, r. 30*l.*, 200*l.*; a plot of land, Princes-rd., f., 140*l.*; 1, 2 and 3, Drayton Cottages, f., r. 54*l.* 12s., 480*l.*; 1 and 4, High-rd., Merton Abbey, f., r. 64*l.*, 780*l.*—By *Rutley, Son, & Vine:* 110, Allcroft-rd., Kentish Town, u.t. 70 yrs., g.r. 7*l.* 7s., 255*l.*; 11, Cheyne-row, Chelsea, u.t. 42 yrs., g.r. 7*l.* r., 38*l.*, 345*l.*; 30 and 32, High-st., Wandsworth, u.t. 31 yrs., g.r. 70*l.*, r. 100*l.*, 50*l.*; 67, Frithville-gardens, Shepherd's Bush, u.t. 80¾ yrs., g.r. 8*l.* 8s., r. 33*l.*, 240*l.*; 35, Archer-st., Notting Hill, u.t. 55 yrs., g.r. 8*l.*, r. 45*l.*, 355*l.*; 2 and 3, Crambridge Villas, Acton Green, u.t. 80 yrs., g.r. 10*l.*, 160*l.*; 36, Belton-rd., Willesden, u.t. 85½ yrs., gr., 6*l.*, r. 36*l.*, 280*l.*; 48 and 50, Howland-st., Tottenham-Ct.-rd., u.t. 53¾ yrs., g.r. 60*l.*, 875*l.*; 71, Huntley-st., u.t. 17 yrs., g.r. 50*l.*, 95*l.*; 77, Chenies Mews, u.t. 11½ yrs., g.r. 30*l.*, 35*l.*; 97, Cleveland-st., u.t. 23 yrs., g.r. 40*l.*, 195*l.*; 77, Charlotte-st., Marylebone, u.t. 17½ yrs., g.r. 34*l.*, 280*l.*; 47, Hartland-rd., Kentish Town, u.t. 43 yrs., g.r. 5*l.* 5s., 240*l.*; 265 and 265a, Edgware-rd., Paddington, u.t. 24½ yrs., g.r. 130*l.*, r. 180*l.*, 300*l.*; "The Vineries," Nightingale-rd., Wood Green, and 3 r. 2 p., f., 1,000*l.*—By *Douglas Young* (at Winchester House): 4 and 9, Gleneldon-rd., Streatham, f., r. 120*l.*, 1,400*l.*; 1 to 5 and 8 to 34, Madeira-rd, f., r. 1,504*l.*, 17,295*l.*; 20 to 30 (even), Gleneldon-rd., f., r. 495*l.*, 6,190*l.*; 1 to 7, Oakdale-rd., and

stabling adjoining, f., r. 498*l.*, 7,000*l.*; 9 and 13, Oakdale-rd., f., r. 200*l.*, 2,640*l.*—By *J. Cheetham* (at Ambergate): "Bull Bridge" Brick and Tile Works, Ambergate, near Derby, and 14 a. 0 r. 14 p., f., 730*l.*; enclosure of land, 19 a 3 r. 9 p., f., 1,268*l.*; "Fritchley House" and "Bowmer Rough" Farms, 37 a. 1 r. 5 p., f., 1,995*l.*

OCTOBER 31.—By *Driver & Co.*: "The Finsbury Stationery Works," Clifton-st., Finsbury, area 25,450 ft., f., 80,000*l.*—By *Boyce & Evens*: 297, 299, and 303, Hoxton-st., Hoxton, f., r. 84*l.*, 1,560*l.*; 1, 2, and 3, Vine-pl., f., r. 42*l.* 18s., 300*l.*; 17 and 19, Hobbs-pl., f., r. 37*l.* 14s., 370*l.*; 26, Harney-st., u.t. 21 yrs., g.r. 5*l.*, 75*l.*—By *Boyton & Pegram*: "Reinsberg" and "Lowood," Knollys-rd., Streatham, u.t. 96¾ yrs., g.r. 16*l.* 16s., r. 90*l.*, 920*l.*; two bldg. plots, Waldegrave Pk.-rd., Twickenham, f., 500*l.*—By *Messrs. Drivers* (Holloway): 31, Parkhurst-rd., Holloway, u.t. 57 yrs., g.r. 8*l.* 10s., e.r. 55*l.*, 535*l.*—By *J. Hibbard & Son*: 77, Mildmay-rd., Stoke Newington, u.t. 50 yrs., g.r. 6*l.* 6s., e.r. 42*l.*, 300*l.*; 128 and 130, Vauxhall Walk, Lambeth, f., r. 72*l.* 16s., 570*l.*; 2, Clarendon-villas, Ponder's End, u.t. 80 yrs., g.r. 7*l.* 10s., r. 26*l.*, 170*l.*; 13 and 14, Park-rd., Barnet, Herts., f., r. 100*l.*, 1,120*l.*—By *Humphreys, Skitt, & Humphreys*: 3, 4, and 5, Ravensbourne-pl., Greenwich, f., 350*l.*—By *Marler & Bennett*: 17, Onslow-sq., Kensington, u.t. 34½ yrs., g.r. 5*l.*, r. 151*l.* 15s., 1,775*l.*—By *Newbon & Co.*: 51 and 57, Willow-st., Westminster, u.t. 48¾ yrs, g.r. 10*l.* 10s., r. 68*l.*, 650*l.*; 25 and 27, Grosvenor-st., and workshops adjoining, u.t. 14¾ yrs., g.r. nil, r. 66*l.* 8s., 190*l.*; 247, Liverpool-rd., Islington, f., e.r. 38*l.*, 375*l.*; f.g.r. of 15*l.* 15s., Raleigh-rd., Hornsey, reversion in 93 yrs., 415*l.*; 3, 5, and 7, Bishop's-grove, Islington, u.t. 67 yrs., g.r. 12*l.* 12s., 510*l.*; 45, 49, and 53, Willow-st., Westminster, u.t. 48¾ yrs., g.r. 14*l.* 10s., r. 93*l.* 10s., 970*l.*; 88, Tachbrook-st., Pimlico, u.t. 33 yrs., g.r. 9*l.* 9s., r. 60*l.*, 460*l.*; 2 and 8, High-st., Putney, u.t. 72 yrs., g.r. 28*l.*, r. 170*l.*, 1,780*l.*—By *Stimson & Sons*: 57, 61 to 67 (odd), Theobald's-rd., Holborn, u.t. 63 yrs., g.r. 105*l.*, r. 409*l.* 10s., 4,350*l.*; f.g.r. 200*l.*, Lambeth-walk, Lambeth, reversion in 90 yrs., 4,100*l.*; f.g.r. 10*l.*, Rotherhithe-st., Rotherhithe, reversion in 69 yrs., 200*l.*; 2, Netley-st., Hampstead-rd., u.t. 17 yrs., g.r. 4*l.*, r. 46*l.* 4s., 210*l.*; 103, Walworth-st., Walworth, u.t. 59 yrs., g.r. 19*l.*, e.r. 100*l.*, 800*l.*; f.g.r. 6*l.*, St. Leonard-st., Bromley-by-Bow, reversion in 53¼ yrs., 800*l.*; f.g.r. 6*l.* 10s., Harold-st., Bethnal Green, reversion in 39 yrs., 180*l.*; 4, Wellesley-rd., Wanstead, f., r. 25*l.*, 375*l.*—By *T. B. Westacott*: 74, Mill Hill-rd., Acton, f., r. 30*l.*, 420*l.*; 1, Savernake-rd., Kentish Town, u.t. 81½ yrs., g.r. 8*l.* 10s., r. 50*l.*, 545*l.*; 30, Savernake-rd., u.t. 72½ yrs., g.r. 9*l.*, r. 52*l.* 10s., 530*l.*

[*Contractions used in these Eists.*—F.g.r. for freehold ground-rent; l.g.r. for leasehold ground-rent; i.g.r. for improved ground-rent; g.r. for ground-rent, r. for rent; f. for freehold; c. for copyhold; l. for leasehold; e.r. for estimated rental; u.t. for unexpired term; p.a. for per annum; yrs. for years; st. for street; rd. for road; sq. for square; pl. for place; ter. for terrace; cres. for crescent; yd. for yard, &c.

## PRICES CURRENT OF MATERIALS.

| TIMBER. | | |
|---|---|---|
| Greenheart, B.G. | ton | 8/0/0 0/0/0 |
| Teak, E.I. | load | 10/0/0 16/0/0 |
| Sequoia, U.S. ft. cu | | 1/7 1/10 |
| Ash, Canada load | | 3/0/0 4/5/0 |
| Birch, do. | | 2/0/0 3/5/0 |
| Elm, do. | | 3/15/0 5/0/0 |
| Fir, Dantsic, &c. | | 2/0/0 3/10/0 |
| Oak, do. | | 2/15/0 4/15/0 |
| Canada | | 6/5/0 7/15/0 |
| Pine, Canada red | | 0/0/0 0/0/0 |
| Do. Yellow | | 2/10/0 4/15/0 |
| Lath, Dantsic, fath | | 4/10/0 5/10/0 |
| St. Petersburg | | 5/0/0 6/10/0 |
| Wainscot, Riga, &c., log | | 2/15/0 5/0/0 |
| Odessa, crown | | 2/15/0 5/0/0 |
| Deals, Finland | | |
| 2nd & 1st std | 100 | 7/0/0 8/10/0 |
| Do. 4th & 3rd | | 7/0/0 8/0/0 |
| Do. Riga | | 7/0/0 8/0/0 |
| St. Petersburg, 1st yellow | | 9/10/0 22/0/0 |
| Do. 2nd yellow | | 7/10/0 9/0/0 |
| Do. white | | 8/0/0 9/10/0 |
| Swedish | | 7/0/0 15/10/0 |
| White Sea | | 7/5/0 14/0/0 |
| Canada, Pine 1st | | 21/0/0 24/0/0 |
| Do. do. 2nd | | 15/0/0 17/0/0 |
| Do. do. 3rd, &c. | | 8/0/0 10/0/0 |
| Do. Spruce, 1st | | 9/0/0 10/10/0 |
| Do. do. 3rd and 2nd | | 6/10/0 7/10/0 |
| New Brunswick | | 6/0/0 7/0/0 |
| Battens, all kinds | | 5/0/0 21/0/0 |
| Flooring boards, sq., 1 in. prep. 1st | | 0/9/8 0/14/6 |
| Do. 2nd | | 0/6/6 0/11/6 |
| Other qualities— | | 0/4/6 0/7/6 |
| Cedar, Cuba | ft. | /3½ /4½ |
| Honduras, &c. | | /3½ /4½ |
| Mahogany, Cuba St. Domingo, cargo av. | | /3 1/0 |
| Mexican do. do. | | /3 /4 |
| Tobasco do. do. | | /3½ /6 |
| Honduras do. | | /3½ /5½ |
| Box, Turkey | ton | 4/0/0 15/0/0 |
| Rose, Rio | | 7/0/0 16/0/0 |
| Bahia | | 6/0/0 15/0/0 |
| Satin, St. Domingo | | 0/0/5 0/1/0 |

| TIMBER (*continued*). | | |
|---|---|---|
| Satin, Porto Rico | | 0/0/6 0/1/6 |
| Walnut, Italian | | 0/0/3 0/0/7 |
| **METALS.** | | |
| Iron—Pig, in Scotland | ton | 2/6/8 0/0/0 |
| Bar, Welsh, in London | | 5/12/6 5/15/0 |
| Do. do. at works in Wales | | 5/2/6 5/5/0 |
| Do. Staffordshire, in London | | 6/0/0 6/10/0 |
| COPPER—British cake and ingot | | 47/15/0 48/5/0 |
| Best selected | | 48/15/0 49/5/0 |
| Sheets, strong | | 55/0/0 0/0/0 |
| Chili bars | | 44/6/3 44/11/3 |
| YELLOW METAL | lb | 0/4 9-16 0/0/4½ |
| LEAD—Pig, Spanish | ton | 11/6/3 11/7/6 |
| English com. brands | | 11/8/9 11/11/3 |
| Sheet, English, 6 lbs. per sq. ft. and upwards | | 12/10/0 12/12 6 |
| Pipe | | 13/10/0 0/0/0 |
| ZINC—English sheet | ton | 18/5 0 18/10/0 |
| Vieille Montagne | | 18/15/0 0/0/0 |
| TIN—Straits | | 65/2/6 65/12/6 |
| Australian | | 66/2/6 65/12/6 |
| English Ingots | | 69/10/0 69/15/0 |
| Banca | | 67/10/0 67/15/0 |
| Billiton | | 67/0/0 67/5/0 |
| **OILS.** | | |
| Linseed | ton | 20/5/0 21/0/0 |
| Cocoanut, Cochin | | 24/15/0 25/0/0 |
| Do. Ceylon | | 22/15/0 0/0/0 |
| Palm, Lagos | | 23/5/0 0/0/0 |
| Rapeseed, English pale | | 23/15/0 24/0/0 |
| Do. brown | | 22/5/0 22/10/0 |
| Cottonseed ref. | | 17/0/0 17/10/0 |
| Oleine | | 19/10/0 20/10/0 |
| Lubricating, U.S. | | 5/6/0 8/0/0 |
| Do. black | | 4/0/0 6/6/0 |
| TAR—Stockholm | barrel | 0/19/6 0/0/0 |
| Archangel | | 0/15/0 0/0/0 |

## TENDERS.

[Communications for insertion under this heading should be addressed to "The Editor," and must reach us *not later than* 10 *a.m. on Thursdays*. N.B.—We cannot publish Tenders unless authenticated by the name and address of the sender.]

ABERDEEN, N.B.—For the formation and completion of a road (384 yds.), Craigton School, Peterculter, for the School Board. Mr. J. A. Beattie, C.E., 22, Bridge-street, Aberdeen. Quantities by Engineer:—

| | | | |
|---|---|---|---|
| A. Milne & Son | £523 0 0 | Donald Cruickshank, Nairn Cottage, Cults (accepted) | 417 16 2 |
| Chas. Ritchie | 429 19 6 | | |
| G. Mackay & Son | 427 17 6 | | |
| R. C. Brebner | 416 0 0 | Alex. Mackay | £398 17 10 |

BARNSLEY.—For the construction of sewer, New-street, Staincross, for the Darton Urban District Council. Mr. Robt. Dixon, architect, 5, Eastgate, Barnsley:—

| | | | |
|---|---|---|---|
| Duncan & Jones | £320 0 0 | Geo. Eyre | £117 18 1 |
| Eastwood Bros. | 139 19 0 | James Brook, Lindley, Huddersfield* | 102 10 6 |
| H. Barrows | 138 5 0 | | |

* Accepted.

BLYTH (Northumberland).—Accepted for the supply of 600 tons hand-broken road whinstone, for the Cowper Urban District Council. Mr. Robert Grieves, Surveyor, Commercial Buildings, Waterloo, Blyth:—
T. & M. Appleby, Chathill, Northumberland, 7s. 10d. per ton.

BRADFORD.—For the erection of a residence, Paley-road, Bowling. Messrs. Empsall & Clarkson, architects, 55, Tyrrel-street, Bradford:—
T. Robinson ..... £1,400

CAERPHILLY (Glam.).—For the construction of sewer (400 yds.), Heol Fawr, Nelson, for the Urban District Council. Mr. A. O. Harpur, Surveyor, Council Offices, Caerphilly. Quantities by Engineer:—

| | | | |
|---|---|---|---|
| William Davies | £119 7 0 | T. J. Davies | £82 1 0 |
| R. C. Brebner | 112 12 6 | Meshach Williams | 80 17 10 |
| Andrew Harper | 110 0 0 | Wm. Phillips | 80 13 7 |
| Edward Moore | 103 18 0 | Thomas Harris | 76 17 0 |
| Barnes & Chaplin | 95 15 4 | David Thomas | 61 11 8 |
| W. L. Meredith | 83 1 6 | Watkins & Lewis, Deri (accepted) | 71 10 10 |
| Edward Page | 88 5 0 | | |

CAMBERLEY.—For decorative and other works to "The Oaks," Springfield-road, Collingwood-road, Camberley, for Mrs. Dundas Graham. Mr. Walter J. Ebbetts, architect, Savoy House, 115, Strand, W.C.:—

| | | | |
|---|---|---|---|
| J. J. Rayment & Sons | £379 | Hewetson, Milner, & Thexton (accepted) | £215 |
| W. Foord & Sons | 295 | | |
| W. Watson | 260 | | |

CARDIFF.—For forming, paving, kerbing, &c., Manor-road and five other roads, for the Corporation. Mr. W. Harpur, C.E., Borough Engineer, Town Hall, Cardiff:—

| | Carriageway. | Footpaths. | Total. |
|---|---|---|---|
| *Major-road*— | £ s. d. | £ s. d. | £ s. d. |
| R. C. Brebner | 175 11 0 | 371 13 6 | 547 4 6 |
| James Rich. Cardiff | 97 17 6 | 215 15 6 | *313 12 11 |
| Ellis & Davies | 107 16 6 | 209 16 1 | 317 12 7 |
| *Welby-road*— | | | |
| R. C. Brebner | 77 13 11 | 195 6 6 | 273 0 5 |
| James Rich | 57 6 3 | 121 10 3 | 178 16 6 |
| Ellis & Davies, Cardiff | 54 11 8 | 118 19 4 | *173 11 0 |
| *Atlas-road*— | | | |
| R. C. Brebner | 114 16 6 | 245 1 6 | 359 18 0 |
| James Rich. Cardiff | 60 4 6 | 142 7 5 | *202 11 11 |
| Ellis & Davies | 66 1 10 | 138 9 4 | 204 11 2 |
| *Denton-road*— | | | |
| R. C. Brebner | 96 15 3 | 203 14 0 | 300 9 3 |
| James Rich | 62 7 9 | 117 19 1 | 180 6 10 |
| Ellis & Davies, Cardiff | 62 3 9 | 116 2 2 | *178 5 11 |
| *Major-lane.* | | | |
| R. C. Brebner | £99 13 0 | James Rich, Cardiff* | £45 16 5 |
| Ellis & Davies | 48 6 7 | | |
| *Denton-lane* | | | |
| R. C. Brebner | £41 12 9 | James Rich, Cardiff* | £32 0 9 |
| Ellis & Davies | 21 15 0 | | |

* Accepted.

COCKERMOUTH.—For the extension of a sewer, Waterloo terrace, Flimby, for the Rural District Council. Mr. J. B. Wilson, C.E., Cockermouth:—

| | | | |
|---|---|---|---|
| Smith & Marshall | £119 5 0 | Jno. Hunter | £73 18 0 |
| J. T. Harrison | 99 7 0 | Robt. Clark, Flimby* | 60 11 0 |
| James Taylor | 80 19 7 | E. Graham | 60 0 0 |

* Accepted

CREWE.—For isolation hospital at Crewe, for the Town Council, from plans and under the supervision of Mr. Geo. E. Bolshaw, architect, 189, Lord-street, Southport, and Victoria-street, Crewe:—

| | No. 1. | No. 2. | No. 3. | No. 4. | Total. |
|---|---|---|---|---|---|
| | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. |
| H. Sergeant | 5757 4 6 | 485 13 6 | 1647 2 6 | 995 15 6 | 8850 16 0 |
| J. & J. Lee | 4429 8 3 | 477 3 11 | 1243 9 3 | 562 6 1 | 6712 7 6 |
| J. Fenton | 4725 0 0 | 245 10 0 | 1360 0 0 | 584 0 0 | 6914 10 0 |
| Micklewright & Wright | 4651 0 8 | 392 14 0 | 1335 14 6 | 592 7 0 | 6970 16 2 |
| J. Gethin | 4357 0 0 | 353 15 0 | 1218 0 0 | 537 5 0 | 6466 0 0 |
| A. & H. Hulse | 4214 7 6 | 356 17 8 | 1224 6 5 | 509 13 0 | 6305 4 7 |
| J. Matthews, Nantwich | 4200 0 0* | 445 0 0 | 1199 0 0* | 500 0 0* | 6344 0 0 |

[Architect's estimate for the whole, £6,526]
* Accepted.

FLEETWOOD (Lancs.).—Accepted for the erection of Congregational Sunday-school buildings. Messrs. T. A. Drummond & Sons, architects, Fleetwood:—
Robert Westby, Fleetwood ..... £1,360 4 8

HATFIELD (Herts.).—For the execution of works for carrying off storm-water, for the Rural District Council. Mr. J. A. Aird, Surveyor, District Council Offices, Hatfield:—

| | | | |
|---|---|---|---|
| T. Adams | £417 0 0 | J. Naden | £349 7 6 |
| A. T. Catley | 366 0 0 | G. Copper | 344 13 0 |
| D. H. Porter | 357 0 0 | J. Jackson, Forest Gate, London* | 317 17 6 |
| W. Wadey | 353 0 0 | | |

[Surveyor's estimate, £350.]
* Accepted.

HOYLAND (Yorks.).—For laying 840 yards pipe-sewer, St. Helen's-street to Milton-road, for the Urban District Council. Mr. Wm Farrington, C.E., Council Offices, Hoyland:—

| | | | |
|---|---|---|---|
| Duncan & Jones | £675 10 0 | Eastwood Bros. | £450 4 7 |
| Joseph King | 564 15 0 | George Hall | 414 16 0 |
| Bell & Sons | 552 9 6 | George Eyre | 395 10 0 |
| John Farr | 485 19 7 | J. E. Nadin | 384 0 0 |
| A. E. Jenkinson | 472 15 4 | | |

LEICESTER.—For the erection of a house, Trafford-road, for Mr. G. H. Carr. Mr. J. Smith, architect, Briton-street, Leicester:—

| | | | |
|---|---|---|---|
| J. O. Jewsbury | £645 0 0 | J. Marston | £616 0 0 |
| T. C. Tyers | 636 0 0 | J. Stevens | 622 18 0 |
| C. Horspool | 626 0 0 | J. Mason & Sons | 599 15 0 |
| M. Gurney | 625 7 6 | Gretton & Woolley | 585 5 6 |
| J. N. Hill | 624 0 0 | J. H. Clayton* | 581 0 0 |

[All of Leicester.]
* Accepted.

LINDFIELD (Sussex).—For additions to school buildings, for the School Board. Mr. F. W. Holloway, architect, Hayward's Heath. Quantities by Mr. F. H. Humphreys, Trinity-street, Hastings:—

| | | | |
|---|---|---|---|
| P. Anscombe | £1,221 | J. Finch, Hayward's Heath* | £1,095 |
| W. Taylor | 1,200 | E. J. Kent | 1,087 |

* Accepted conditionally that commencement of the building be postponed until such time in February as the surveyor may direct.

LLANELLY.—For certain additions to Lakefield School, for the Llanelly School Board. Mr. J. B. Morgan, architect, Llanelly:—

| | | | |
|---|---|---|---|
| J. Evans | £704 0 | Thomas & John Brown | £606 0 |
| J. E. Davies | 698 0 | G. Mercer | 598 15 |
| Davis Bros. | 678 0 | A. Clement | 534 0 |
| W. Hopkins | 660 0 | | |

LLANELLY.—For the erection of new schools at Bynea, for the Llanelly School Board. Mr. J. B. Morgan, architect, Llanelly:—

| | | | |
|---|---|---|---|
| W. Hopkins | £3,310 16 9 | Thos & John Brown | £2717 0 0 |
| G. Chaicer | 2 598 13 0 | J. Evans | 2,594 0 0 |

LONDON.—For repairs to exterior of seventy-six houses on the Haberdashers' Company's Estate, Hoxton, for Mr. Thomas Arno. Mr. A. J. Martin, surveyor, 386, Old-street, E.C.:—

| | | | |
|---|---|---|---|
| Pringle | £2,607 | Clark | £1,727 |
| Goodall | 2,391 | Weibking | 1,624 |
| Hood | 1,996 | Speight | 968 |

LONDON.—Accepted for rebuilding of 39, Bishopsgate-street Within, E.C. Mr. Delissa Joseph, architect, 17 and 18, Basinghall-street, E.C.:—
W. F. Coney, Fenchurch Station Chambers, 66, Fenchurch-street, E.C. ..... £4 500

LONDON.—For making up and paving Margravine-road, Section 4, for the Fulham Vestry. Mr. Charles Botterill, Surveyor, Town Hall, Walham Green, S.W.:—

| | Roadway. | York. | Imperial. | Victoria. | Adamant. |
|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ |
| J. Mears | 229 | — | — | — | — |
| H. J. Greenham | 185 | 119 | 95 | 95 | — |
| G. Wimpey & Co. | 209 | 101 | — | 81 | 73 |
| E. Rogers & Co. | 233 | 102 | — | — | — |
| Nowell & Robson | 239 | 99 | — | — | — |
| Imperial Stone Co. | — | — | 75 | — | — |
| Victoria Stone Co. | — | — | — | 75 | — |

LONDON.—For taking down and re-building four small houses in Fellbrigg-street, Bethnal Green. Mr. Charles F. Burden, surveyor, Bancroft-road, E.:—

| | | | |
|---|---|---|---|
| T. Salt | £1,375 | Howlett | £1,150 |
| G. Lusk | 1,199 | George Barker* | 985 |
| Davis | 1,100 | Wheeler† | 890 |

* Accepted. † Withdrawn.

LONDON.—For the erection of cottages, Greenford, for the Receiver for the Metropolitan Police District. Mr. John Butler, architect. Quantities by Mr. W. H. Thurgood:—

| | | | |
|---|---|---|---|
| Lawrence & Sons | £1,790 | J. O. Richardson | £1,690 |
| W. Woodbridge | 1,775 | Waterman | 1,682 |
| B. Myring | 1,745 | Willmott & Sons | 1,645 |
| Higgs & Hill | 1,720 | A. & B. Hanson | 1,470 |

LONDON.—For the erection of casual wards at Holmes-road, Kentish Town, for the Guardians of St. Pancras. Messrs. A. & C. Harston, architects, 15, Leadenhall-street, E.C. Quantities by Messrs. Corderoy, Selby, & Corderoy and Mr. W. T. Farthing:—

| | | | |
|---|---|---|---|
| G. E. Todd | £13,446 | W. Johnson & Co., Ltd. | £11,495 |
| D. Charteris | 12,976 | C. Miskin | 11,473 |
| McCormick & Sons | 12,746 | J. & C. Bowyer | 11,465 |
| E. Lawrance & Sons | 12,260 | Holliday & Greenwood | 10,950 |
| H. Wall & Co. | 12,023 | Thos. Gregory & Co., Clapham Junction* | 10,697 |
| Leslie & Co., Ltd. | 11,791 | | |
| Shillitoe & Sons | 11,600 | | |

* Accepted.

LONDON.—For sewering, paving, &c. (1) Grosvenor-road, and (2) Hatfield-road, Hanwell, for the Urban District Council. Mr. S. Barnes, Surveyor, Council Offices, Church-road, West Hanwell:—

| | Grosvenor-road. | Hatfield-road. |
|---|---|---|
| Fry Brothers | £1,465 0 0 | £105 0 0 |
| G. Wimpey & Co. | 1,446 17 3 | 106 12 0 |
| H. Morecroft | 1,393 7 3 | 107 19 0 |
| Nowell & Robson | 1,325 4 3 | 108 0 0 |
| C. W. Killingback & Co. | 1,293 16 3 | 97 0 0 |
| W. Wadey | 1,276 14 0 | 99 15 8 |
| S. Hudson | 1,191 0 0 | 108 13 9 |
| W. Lee & Son | 1,182 7 7 | 85 15 7 |
| J. Macklin | 1,166 17 5 | 95 11 0 |
| F. Free & Sons | 1,159 12 0 | 94 15 7 |
| G. Pearce | 1,162 9 9 | 90 12 8 |
| T. Adams | 1,120 12 10 | 111 5 2 |
| H. Lee | 1,095 14 0 | 80 16 9 |
| John Ball, Chiswick (accepted) | 988 2 11 | 76 6 9 |
| Surveyor's estimate | 1,117 19 5 | 91 18 6 |

LONDON.—For providing and fixing a small low-pressure hot water apparatus, with a vertical boiler at the buildings in Abbey-street, Bethnal Green, which are being altered in order to adapt them for cookery, laundry, manual training, and housewifery centres, for the School Board for London:—

| | | | |
|---|---|---|---|
| G. Davis | £266 0 0 | J. Wontner-Smith, Gray, & Co. | £162 7 6 |
| Matthews & Yates, Ltd. | 254 0 0 | Vaughan & Brown, Ltd., Kirby-street* | 262 0 0 |
| Purcell & Nobbs | 183 0 0 | | |
| Wenham & Walters Ltd. | 175 0 0 | | |

* Recommended for acceptance by the Works Committee.

LONDON.—For constructing new offices for the Cayley-street School, Limehouse, and for new system of drainage, for the School Board for London. Mr. T. J. Bailey, Architect:—

| | New water-closets, sanitary works, &c., with glazed stoneware pipes and fittings. | New water-closets, sanitary works, &c., with cast-iron pipes and fittings. |
|---|---|---|
| W. Gregar & Son | £2,195 | £2,395 |
| Lathey Bros. | 1,747 | 2,095 |
| D. Gibb & Co. | 1,746 | 1,904 |
| F. G. Minter | 1,500 | 1 800 |
| G. Newton | 1,565 | 1 623 |
| E. Triggs | 1,430 | 1,620 |
| Atherton & Dolman | 1,420 | 1,605 |
| J. T. Robey, Bow-road* | 1,385 | 1,574 |

* Recommended by the Works Committee for acceptance.

LONDON.—For providing and fixing a small low-pressure hot-water apparatus, with a vertical boiler, for three class-rooms and part of the hall on the ground-floor, and two class-rooms on the first and second floors, with partial heating of the halls of the Central-street School, St. Luke's, for the School Board for London:—

| | | | |
|---|---|---|---|
| G. Davis | £182 0 | Duffield & Co. | £124 0 |
| J. C. & J. S. Ellis, Ltd. | 177 10 | J. F. Clarke & Sons, Featherstone-st., E.C.* | 113 0 |
| W. G. Cannon & Sons | 128 0 | | |

* Recommended for acceptance by the Works Committee.

LONDON.—For providing and fixing a complete system of low-pressure hot-water apparatus at the Webber-row School, Southwark, as enlarged, and for other work, for the School Board for London. Mr. T. J. Bailey, Architect:—

| | | | |
|---|---|---|---|
| Maguire & Son | £786 | T. Green & Son, Ltd. | £572 |
| Comyn Ching & Co. | 629 | J. & F. May | 536 |
| Frazer & Fraser, Ltd. | 628 | W. G. Cannon & Sons | 497 |
| T. D. Berry & Sons | 625 | G. Davis, Kensington* | 446 |

* Accepted by the Works Committee.

LONDON.—For enclosing, draining, and tar-paving the additional land which has been acquired in connexion with the Harper-street School, New Kent-road, for erecting a covered playground for girls and infants, and also for altering the schoolkeeper's house, &c., for the School Board for London. Mr. T. J. Bailey, Architect:—

| | | | |
|---|---|---|---|
| J. Garrett & Son | £734 | J. Otway | £570 |
| F. & H. F. Higgs | 674 | A. Black & Son | 510 |
| W. V. Goad | 662 | G. Newton, Borough* | 494 |
| W. Downs | 635 | | |

* Recommended for acceptance by the Works Committee.

LONDON.—For alterations to No. 154, Pentonville-road. Messrs. Thorpe & Furniss, architects, 154, High-street, Camden Town. No quantities:—

| | | | |
|---|---|---|---|
| Lamble | £1,239 | Toms | £1 123 |
| Drew & Cadman | 1,157 | Gould & Brand (accepted) | 1,092 |
| Anley | 1,146 | | |

LONDON.—For rebuilding shop and premises, No. 16, Wigmore-street, for Messrs. Tansley & Co. Mr. A. J. Bolton, architect. Mr. A. O. Breed, surveyor :—

| | | | |
|---|---|---|---|
| Dixon | £2,295 | Gould & Brand | £1,950 |
| Bywaters | 2,178 | Godson & Son | 1,859 |
| Parker | 2,669 | | |

LONDON.—For repairs, sanitary and decorative works, to No. 128, Gower-street, W.C., for the Trustees of the Christmas Estate. Mr. Walter J. Ebbetts, architect, Savoy House, 115, Strand, W.C. :—

J. J. Rayment & Sons ..... £270

LONDON.—For alterations to No. 40, Burne-street, Edgware-road, and fitting same up as a restaurant for Messrs. Reggiori Bros. Mr. Robert Willey, architect, 33, New Bridge-street, E.C. :—

| | | | |
|---|---|---|---|
| J. Carmichael | £1,685 0 | Allard & Co. | £1,500 0 |
| Antill & Co. | 1,635 0 | Holliday & Greenwood | 1,444 0 |
| J. Bennett | 1,584 10 | Lascelles & Co.* | 1,287 0 |

* Accepted.

LONDON.—For alterations, &c., to "The Beehive," New North-road Messrs. Thorpe & Furniss, architects, 154, High-street, Camden Town. No quantities :—

| | | | |
|---|---|---|---|
| Lamble | £1,769 | Gould & Brand* | £1,543 |
| Toms | 1,567 | | |

* Accepted.

LONDON.—For alterations and repairs to "The Prince Albert," Elmore-street, Essex-road. Messrs. Saville & Martin, architects, Dacre House, Arundel-street, Strand :—

| | | | |
|---|---|---|---|
| Perkins & Co. | £1,446 | Gould & Brand | £1,328 |
| Toms | 1,372 | Dearing | 1 314 |
| Ward & Lamble | 1,355 | Morrison & Goodwin | 1,220 |
| S. Goodall | 1,340 | | |

LONDON.—For pulling down and rebuilding "The Mechanics' Arms," High-street, Deptford. Mr. W. Willis, architect. Quantities by Messrs. E. Stanger & Son :—

| | | | |
|---|---|---|---|
| Downs | £3,140 | Gould & Brand | £2,988 |
| Sheffield Bros. | 3,069 | Gladding | 2,887 |
| King & Son | 2,998 | | |

LONDON.—For providing additional offices for the girls' department of the Settles-street School, Stepney, for re-connecting the drains to the existing offices, providing new water-closets for the teachers inside the building, and also a partly new system of drainage, for the School Board for London. Mr. T. J. Bailey, Architect :—

| | | | |
|---|---|---|---|
| W. Gregar & Son | £2,400 | Atherton & Dolman | £1,810 |
| W. Shurmur | 1,998 | G. Newton | 1,793 |
| McCormick & Sons | 1,840 | G. Munday & Sons, Tower Hill* | 1,655 |
| A. Reed & Son | 1,825 | | |

* Recommended for acceptance by the Works Committee.

LONDON.—For re-building Nos. 42, 44, and 45, City-road, E.C. Mr. E. W. Coldwell, architect. Quantities by Messrs. Wakelin & Bare :—

| | | | |
|---|---|---|---|
| Chaffen | £7,220 | T. E. Mitchell | £6,469 |
| Dove Bros. | 6,975 | Scrivener & Co. | 6,452 |
| J. Anley | 6,720 | Patman & Fotheringham | 6,289 |
| Stimpson & Co. | 6,695 | Fortescue | 5,982 |
| Grover & Co. | 6,484 | | |

LONDON.—For the erection of a school on the site in Queen's-road, Dalston, N.E., to provide accommodation for 1,196 children, and for other work, for the School Board for London. Mr. T. J. Bailey, Architect :—

| | | | |
|---|---|---|---|
| G. Munday & Sons | £32,454 4 7 | Atherton & Dolman | £24,143 0 0 |
| W. M. Dabbs | 24,461 0 0 | Hart Bros. | 23,969 0 0 |
| W. Pattinson & Sons | 24,376 0 0 | E. Lawrance & Sons | 23 454 0 0 |
| G. S. S. Williams & Son | 24,360 0 0 | C. Cox | 23,200 0 0 |
| Killby & Gayford | 24,335 0 0 | Treasure & Son | 23,177 0 0 |
| T. Boyce | 24,151 0 0 | J. Grover & Son | 22,274 0 0 |
| | | W. Shurmur, Upper Clapton* | 21,942 0 0 |

* Recommended by the Works Committee for acceptance.

LONDON.—For erecting a school, with three central halls, for 1,250 children, cooking and laundry centre, and caretaker's house, at Dudding Hill, for the Willesden School Board Mr. G. E. T. Laurence, architect, 181, Queen Victoria-street, E.C. Quantities by Messrs. Northcroft, Son, & Neighbour :—

| | £ | s. d. | A. £ | s. d. | B. £ | s. d. | C. £ | s. |
|---|---|---|---|---|---|---|---|---|
| J. Chessum & Sons | 19,550 | 0 0 | 295 | 0 0 | 358 | 0 0 | 100 | 0 |
| R. A. Yerbury & Sons | 19,550 | 0 0 | 295 | 0 0 | 358 | 0 0 | 100 | 0 |
| Cowley & Drake | 17,850 | 0 0 | 300 | 0 0 | 232 | 0 0 | 80 | 0 |
| A. Kellett | 17,801 | 13 3 | 269 | 14 4 | 102 | 17 3 | 18 | 5 |
| J. Parnell & Son | 16,778 | 0 0 | 193 | 10 0 | 247 | 10 0 | No extra | |
| Treasure & Son | 16,508 | 0 0 | 272 | 0 0 | 223 | 0 0 | 42 | 0 |
| G. Godson & Sons | 16,082 | 0 0 | 239 | 0 0 | 235 | 18 2 | 18 | 0 |
| G. Neal | 15,474 | 0 0 | 204 | 0 0 | 242 | 0 0 | 40 | 0 |

A.—Extra for brickwork in cement.
B.—Extra if Westmoreland slates in lieu Bangor ditto.
C.—Extra if tiles in lieu of slates.

LONDON.—For the erection of three temporary iron buildings on a site in Lee-street, Maxey-road, Plumstead, for the School Board for London. Mr. T. J. Bailey, Architect :—

| | | | |
|---|---|---|---|
| Hill & Smith | £2,220 0 0 | D. Charteris | £1,807 0 0 |
| E. C. & G. Keay, Ltd. | 2,191 0 0 | J. Lysaght, Ltd. | 1,805 0 0 |
| T. Cruwys | 1,975 0 0 | W. Harbrow | 1,852 0 0 |
| J. Dixon & Co. | 1,927 4 6 | Humphreys, Ltd., Knightsbridge* | 1,828 0 0 |
| Croggon & Co., Ltd. | 1,925 0 0 | | |

* Recommended for acceptance by the Works Committee.

LONDON.—For erecting a school with three central halls for 1,250 children, cookery and laundry centre, and caretaker's house, at Leopold-road, for the Willesden School Board. Mr. G. E. T. Laurence, architect, 181, Queen Victoria-street, E.C. Quantities by Mr. Morgan H. Young :—

| | £ | s. d. | A. £ | s. d. | B. £ | s. d. | C. £ | s. d |
|---|---|---|---|---|---|---|---|---|
| J. Chessum & Sons | 18,760 | 0 0 | 300 | 0 0 | 360 | 0 0 | 100 | 0 0 |
| R. A. Yerbury & Sons | 18,760 | 0 0 | 300 | 0 0 | 360 | 0 0 | 100 | 0 0 |
| Cowley & Drake | 17 250 | 0 0 | 300 | 0 0 | 238 | 0 0 | 82 | 0 0 |
| Treasure & Son | 16,217 | 0 0 | 274 | 0 0 | 225 | 0 0 | 40 | 0 0 |
| J. Parnell & Son | 16,086 | 0 0 | 195 | 0 0 | 240 | 0 0 | 30 | 0 0 |
| G. Godson & Sons | 15,536 | 0 0 | 241 | 8 0 | 234 | 13 0 | 10 | 7 0 |
| G. Neal | 14,888 | 0 0 | 225 | 0 0 | 243 | 0 0 | 40 | 0 0 |
| A. Kellett (withdrawn) | 14,305 | 8 3 | 271 | 12 0 | 95 | 19 1 | 62 | 5 3 |

A.—Extra for brickwork in cement.
B.—Extra if Westmoreland slates in lieu Bangor ditto.
C.—Extra if tiles in lieu of slates.

LONDON.—For providing and fixing a complete system of low-pressure hot-water apparatus at the old school, in Camden-street, Camden Town, for the School Board for London. Mr. T. J. Bailey, Architect :—

| | | | |
|---|---|---|---|
| Maguire & Son | £754 | J. & F. May | £472 |
| G. Davis | 496 | Wenham & Waters | 464 |
| J. Wontner Smith, Gray, & Co. | 486 | W. G. Cannon & Sons | 434 |
| J. F. Clarke & Sons | 477 | Purcell & Mobbs, Fitzroy-square, W.* | 423 |

* Recommended for acceptance by the Works Committee.

LONDON.—Accepted for building new water-closet, buildings and conveniences, and remodelling the whole of drainage and sanitary work at St. John's Schools, Westminster, for the School Managers :—

F. C. Hoskins, Westminster ..... £450
[No competition.]

LONDON.—For rebuilding the offices of the girls' and infants' departments of the old portion of the "Victoria" School, Becklow-road, Starch Green, and for providing a new system of drainage, for the School Board for London. Mr. T. J. Bailey, Architect :—

| | | | |
|---|---|---|---|
| R. A. Yerbury & Sons | £1,237 | G. Lyford | £1,027 |
| G. S. S. Williams & Son | 1,185 | T. Cruwys, Camden Town* | 952 |
| Stevens Bros. | 1,174 | | |
| B. E. Nightingale | 1,125 | | |

* Recommended for acceptance by the Works Committee.

LONDON.—For building three shops and nine cottages, Veralane, Colehill Estate, Fulham, S.W. Mr. Jos. G. Denton, architect :—

| | | | |
|---|---|---|---|
| J. P. Groome | £4,500 | Saywell J. Hall (accepted) | £4,320 |
| Covney | 4,450 | | |

LUTON.—For supplying, fixing, and completing an iron girder bridge, at the Manor-road, Luton :—

| | | | |
|---|---|---|---|
| W. Brettell | £116 4 / 136 4 *a* | William Lee Gates | 77 0 *i* |
| Cross & Cross | 134 0 *b* | Homan & Rogers | 88 0 *k* |
| Cornes, Martin, & Co. | 145 0 | Hill & Smith | 141 15 *k* |
| Constructional Iron-works Co. | 136 10 | E. C. & J. Keay | 157 0 |
| Cleveland Bridge Co. | 148 16 | Morton, Francis, & Co. | 166 0 |
| Darlington Wagon Co. | 220 0 *c* / 185 0 *d* | Newton, Chambers, & Co. | 134 0 *l* |
| Dyne, Steel, & Co. | 161 18 *e* / 205 0 *f* | Phœnix Foundry Co. | 190 0 |
| Joseph S. Ellis & Co. | 139 10 *g* | J. Sherwell & Co. | 165 0 |
| Alfred John Ellis | 144 12 *h* | St. Pancras Ironwork Co. | 69 0 |
| | | Somervail & Co. | 223 15 *m* |
| | | Henry Woodhouse | |

*a* With concrete. *b* Exclusive of masonry and concrete. *c* Cast-iron ornamental parapet. *d* Lattice parapet. *e* Exclusive of masonry and brickwork. *f* Does not include cement concrete. *g* Ties or plates. *h* Concrete, £27 extra. *i* Does not include cement. *k* Exclusive of masonry and concrete. *l* Steel work, £16 per ton. *m* Concrete and asphalte, £81 8s.

MOUNTAIN ASH.—For the execution of private street works, Penrhiwceiber, for the Urban District Council. Mr. John Williams, Surveyor, Town Hall, Mountain Ash :—

Evan Davies, Penrhiwceiber Quarries, Penrhiwceiber ..£142

POOL (Cornwall).—For the erection of school buildings, &c., for the Illogan School Board. Mr. Sampson Hill, architect, Symon's Cottages, Redruth :—

| | | | |
|---|---|---|---|
| James Julian | £2,697 0 | A. Carkeek | £2,386 0 |
| White & Thomas | 2,560 0 | Hodge & Head | 2,370 0 |
| Moyle & Mitchell | 2,516 10 | Roberts & Head, Carn Brea and Redruth* | 2,297 0 |
| John Berryman | 2,510 0 | | |
| E. Pooley | 2,492 0 | | |

* Accepted.

POTTER'S BAR (Herts.).—For widening a portion of Mutton-lane, for the South Mimms Rural District Council. Mr. Mansbridge, Surveyor, 40, High-street, Barnet :—

| | | | |
|---|---|---|---|
| Thomas Adams | £168 | Killingback | £115 |
| Pye | 117 | Catley | 110 |
| Nickolls | 115 | | |

PUTNEY.—For repairs, sanitary and decorative works, to "Hill Rise," Amersham-road, Putney. Mr. Walter J. Ebbetts, architect, Savoy House, 115, Strand, W.C. :—

| | | | |
|---|---|---|---|
| Foord & Son | £331 | Rayment & Son | £265 |
| W. Smith | 289 | E. Parsons & Co. | 215 |
| Dorrell & Co. | 285 | | |

ROMSEY (Hants.).—For supplying and laying 1,027 yds. tarpaving, and about 50 yds. of repairs on existing footway, for the Corporation of Romsey, acting as the Urban Sanitary Authority. Mr. Arthur J. Jenvey, Borough Surveyor, Market-place, Romsey. Quantities by Surveyor :—

| | | | |
|---|---|---|---|
| W. H. Drake | £126 1 4 | Downside Granite Quarries | £91 11 8 |
| Mendip Granite and Asphalte Co. | 115 0 0 | The Limestone Asphaltic Concrete Co. | |
| J. Clark & Sons | 106 5 6 | 52, Queen Victoria-st., E.C.* | 89 15 0 |
| J. Grace | 97 6 6 | | |
| E. Bradshaw | 94 4 9 | | |
| J. Smart | 91 19 11 | | |

* Accepted.

ST. HELEN'S (Lancs.).—For the erection of new copper-house, loading-stage, &c., at the Brewery, St. Helen's, for Messrs. Greenall, Whitley, & Co., Ltd. Messrs. Inskipp & Mackenzie, architects, 5, Bedford-row, London, W.C. :—

| | | | |
|---|---|---|---|
| J. Ellison | £14,775 0 | P. Tickle | £14,147 10 |
| J. Pilkington | 14,500 0 | Whittaker & Wood* | 14,125 0 |
| Beckett & Co. | 14,293 0 | | |

* Accepted.

STONE (near Dartford).—For the alteration of the infant school at Bean into a mixed school, for the Stone School Board, Kent. Mr. Frank M. Kirby, architect, Galley Hill, Greenhithe :—

| | | | |
|---|---|---|---|
| J. Lonsdale | £112 c | W. Draper, Dartford* | £74 18 |
| Multon & Wallis | 108 0 | | |

* Accepted.

STOURBRIDGE.—For the execution of sewerage works, Whittington, near Kinver, for the Upper Stour Valley Main Sewerage Board. Messrs. Marten & Fiddian, Engineers, Church-street Chambers, Stourbridge :

| | | | |
|---|---|---|---|
| Currall & Lewis | £11,124 0 0 | John Guest | £8,346 16 9 |
| C. A. Horton | 10,967 0 0 | H. Holloway | 7,716 13 4 |
| John Mackay | 9,968 5 0 | Thomas Vale | 7,475 6 0 |
| Jacob Biggs | 9,481 0 0 | George Law, Kidderminster (accepted) | 6,957 0 0 |
| George Bell | 9,438 0 0 | | |
| Jones & Fitzmaurice | 8,769 7 2 | | |

SWANSEA.—For the partial re-building of St. Mary's Parish Church, Swansea. Sir Arthur W. Blomfield & Sons, architects. Quantities by Mr. Saml. Tucker :—

| | | | |
|---|---|---|---|
| Rudd & Sons | £15,845 0 0 | Shillitoe & Son | £12,700 0 0 |
| Stephens Bastow & Co., Ltd. | 14,998 0 0 | Thompson | 12,680 0 0 |
| Bennett Bros. | 13.474 10 0 | Watkin & Co. | 12,609 12 7 |
| Weaver | 13,354 12 6 | Dove Bros. | 11,455 0 0 |
| Billings | 13,225 15 6 | Collins & Godfrey | 11,295 0 0 |
| Jenkins | 12,895 0 0 | Cornish & Gayner | 10,961 0 0 |


W. H. Lascelles & Co.,

121, BUNHILL ROW, LONDON, E.C.

Telephone No. 270.

HIGH-CLASS JOINERY,

LASCELLES' CONCRETE

Architects' Designs are carried out with the greatest care.

CONSERVATORIES,

GREENHOUSES,

WOODEN BUILDINGS,

Bank, Office, & Shop Fittings.

CHURCH BENCHES & PULPITS.

ESTIMATES GIVEN ON APPLICATION.


WINCHESTER.—For additions to "The High School" for girls, Winchester. Mr. Thomas Stopher, architect and surveyor, Winchester :—

| | | | |
|---|---|---|---|
| Stephens, Bastow, & Co., Ltd. | £2,598 | Kimberley | |
| Carter & Son | 2,200 | Fielder & Son, Winchester (accepted) | |

WOKING (Surrey).—For building and completely finishing detached house at Horsell, for Mr. Frank Griffith. Messrs. Poole & Follet, architects, 21, John-street, Adelphi, London, W.C. :—

| | | | |
|---|---|---|---|
| Mitchell Bros. | £3,250 0 0 | J. A. Sims | £3,098 0 |
| P. C. May | 3,100 0 0 | Henry Ingram & Son | 3,089 0 |
| J. Harris & Son | 3,057 0 0 | W. R. Roake | 3,048 0 |
| Higlett & Hammond | 3,040 0 0 | Samuel Chafen | 2,877 0 |

## TO CORRESPONDENTS.

J. E. W. (below our limit).—W. H. E. (thanks: the question, you will see, is already answered).

NOTE.—The responsibility of signed articles, and papers read public meetings, rests, of course, with the authors.

*We cannot undertake to return rejected communications.*

Letters or communications (beyond mere news items) which have been duplicated for other journals are NOT DESIRED.

All communications regarding literary and artistic matters should be addressed to THE EDITOR; those relating to advertisements and other exclusively business matters should be addressed to THE PUBLISHER, and *not* to the Editor.


SUBSCRIBERS in LONDON and the SUBURBS (prepaying at the Publishing Office, 19s. per annum or 4s. 9d. per quarter), can ensure receiving "The Builder" by *Friday Morning's Post.*

## TERMS OF SUBSCRIPTION.

"THE BUILDER" is supplied DIRECT from the Office to any part of the United Kingdom, at the rate of 19s. per annum PREPAID. To all parts of Europe, America, Australia, New Zealand, India, China, Ceylon, &c., 26s. per annum. Remittances payable to DOUGLAS FOURDRINIER) should be addressed to the publisher of "THE BUILDER," No. 46, Catherine-street W.C.

THE BATH STONE FIRMS, Ltd.
BATH,
FOR ALL THE PROVED KINDS OF
BATH STONE.
FLUATE, for Hardening, Waterproofing, and Preserving Building Materials.

DOULTING STONE.
CHARLES TRASK & SONS,
(THE DOULTING STONE COMPANY),
DOULTING, SHEPTON-MALLET.
*London Agent:*
E. A. WILLIAMS, 16, Craven-st., Strand, W.C.

HAM HILL STONE.
The attention of Architects is specially invited to the durability and beautiful colour of this material. Quarries well opened. Quick despatch guaranteed. Stonework delivered and fixed complete. Samples and estimates free. Address, The Ham Hill Stone Co., Norton, Sub-under-Ham, Somerset. London Agent: Mr. E. A. Williams, 16, Craven-st., Strand, W.C. [Advt.

**Asphalte.**—The Seyssel and Metallic Lava Asphalte Company (Mr. H. Glenn), Office, 42, Poultry, E.C.—The best and cheapest materials for damp courses, railway arches, warehouse floors, flat roofs, stables, cow-sheds and milk-rooms, granaries, tun-rooms, and terraces. Asphalte Contractors to the Forth Bridge Co. [Advt.

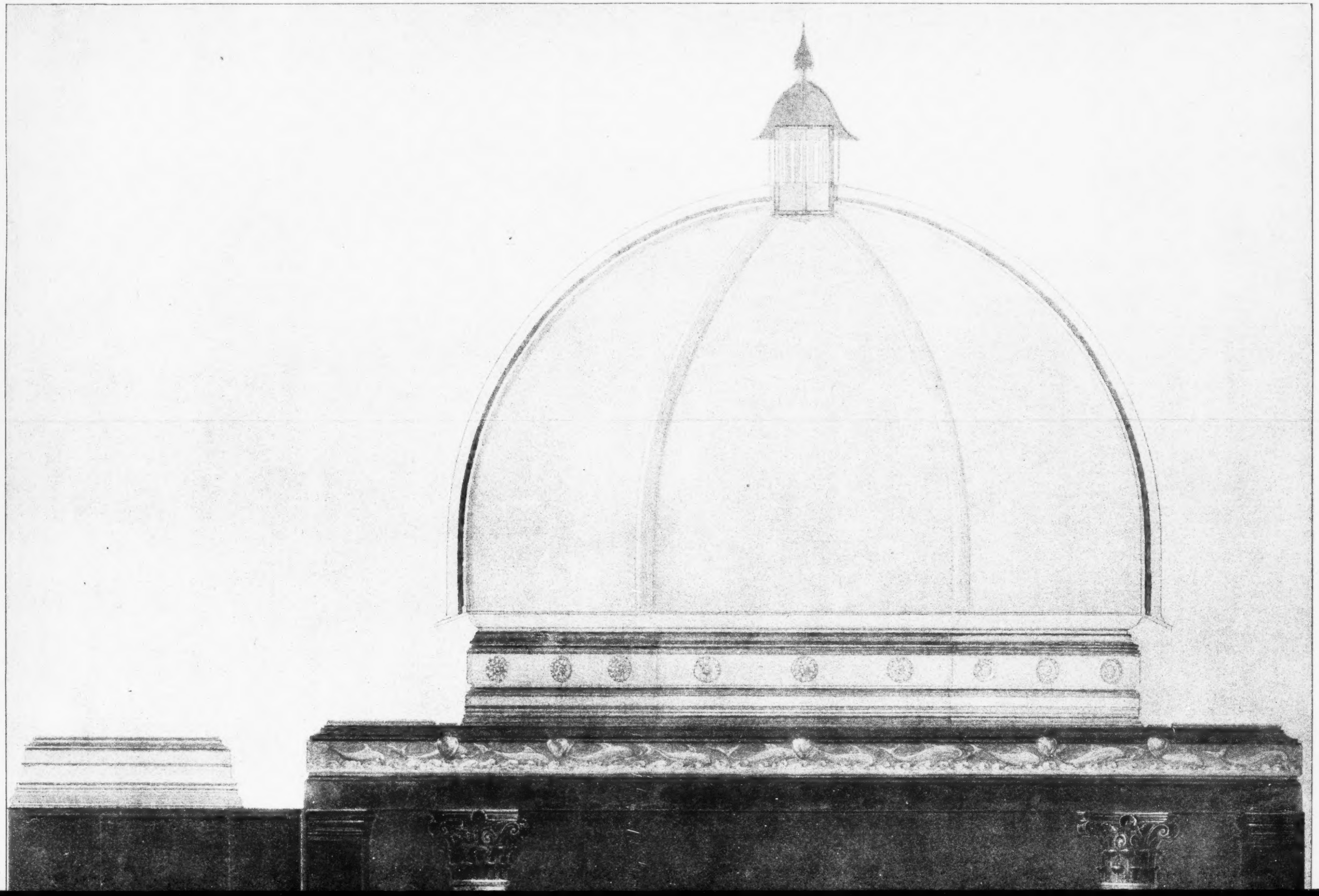
SPRAGUE & CO.,
PHOTOLITHOGRAPHERS,
4 & 5, East Harding-street,
Fetter-lane, E.C. [Advt.

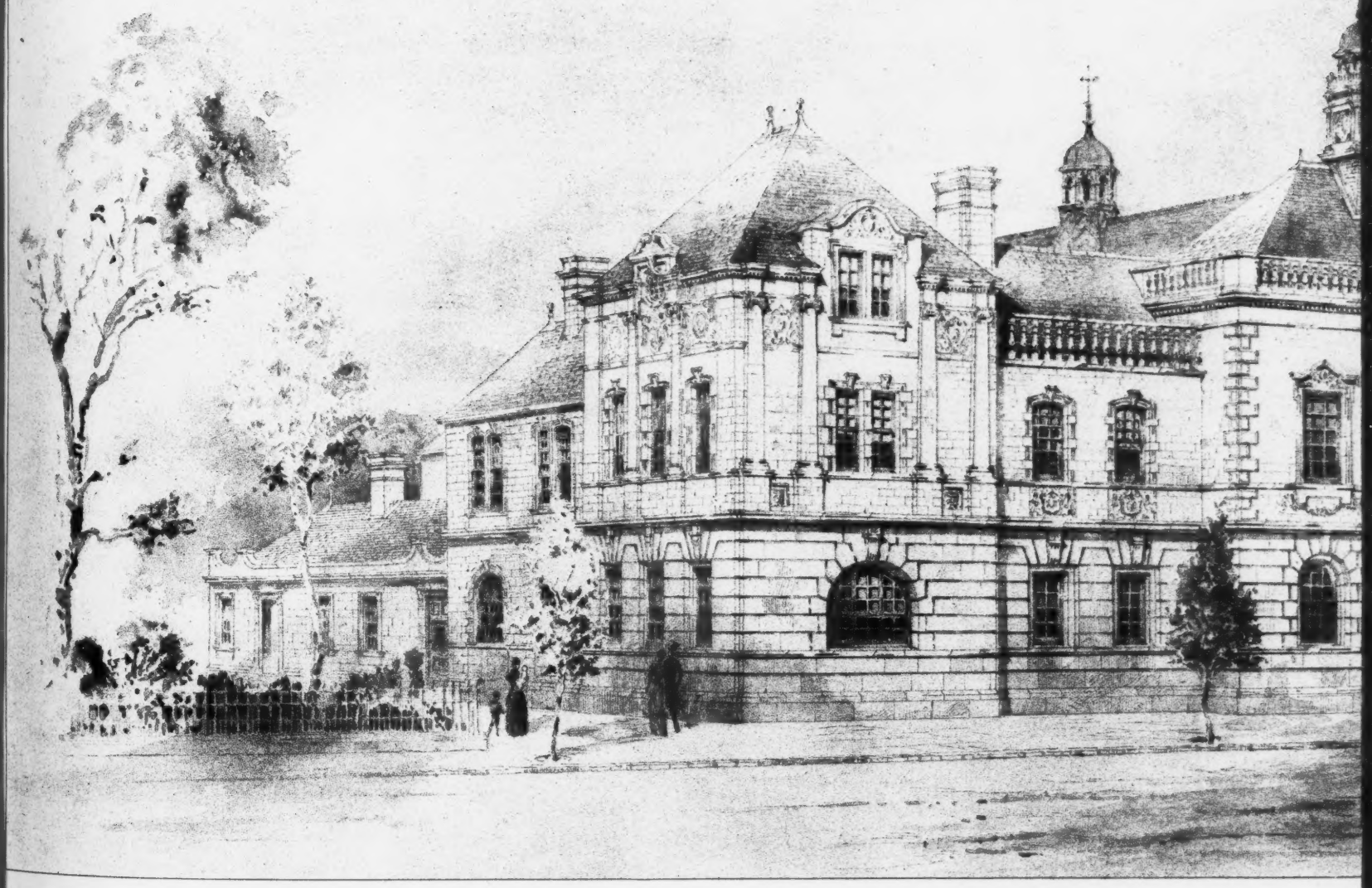
QUANTITIES, &c., LITHOGRAPHED accurately and with despatch.
METCHIM & SON, 20, Parliament-st. S.W.
"QUANTITY SURVEYORS' TABLES."
For 1895 price 6d. post 7d. In leather 1/- Post 1/1 [Advt.

PILKINGTON & CO
(ESTABLISHED 1838),
MONUMENT CHAMBERS,
KING WILLIAM STREET, LONDON, E.C.
*Registered Trade Mark,*
Polonceau Asphalte.
PATENT ASPHALTE and FELT ROOFING.
ACID-RESISTING ASPHALTE.
WHITE SILICA PAVING.
SEYSSEL ASPHALTE.

INK-PHOTO. SPRAGUE & Co. 4 & 5, EAST HARDING STREET, FETTER LANE, E.C.

NEW PICTURE GALLERY, 2 HOLLAND PARK ROAD, W.—Professor Aitchison, A.R.A., Architect.



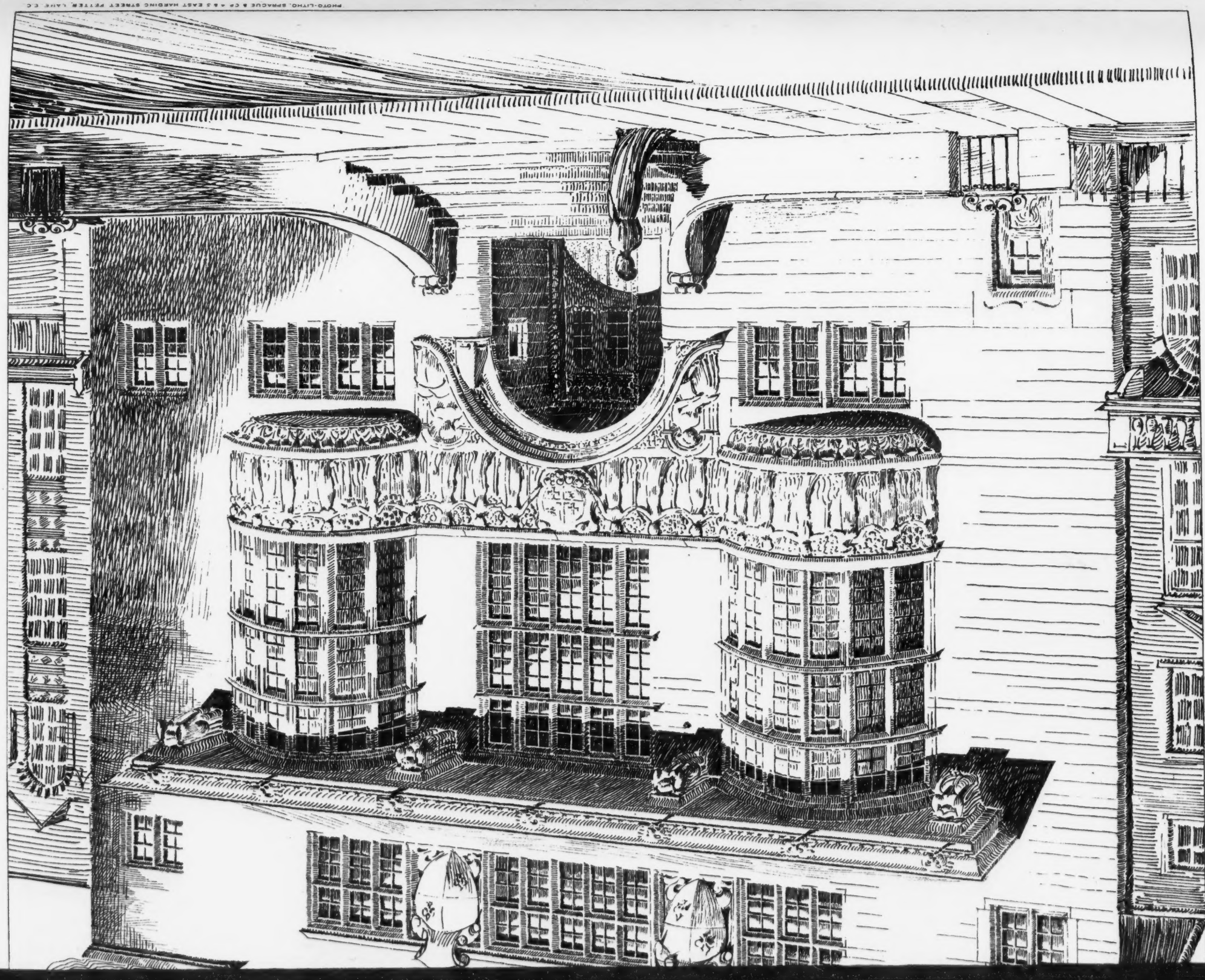


SELECTED DESIGN: LLANDUDNO MUNICIPAL BUILDINGS.—

INK-PHOTO. SPRAGUE & Co 4 & 5, EAST HARDING STREET, FETTER LANE, E.C.

ANDUDNO MUNICIPAL BUILDINGS.—Mr. T. B. Silcock, Architect.

PHOTO-LITHO. SYRACUSE & CP ▪ 43 EAST HARDING STREET PETTER LANE E.C.



# A PUBLIC LIBRARY

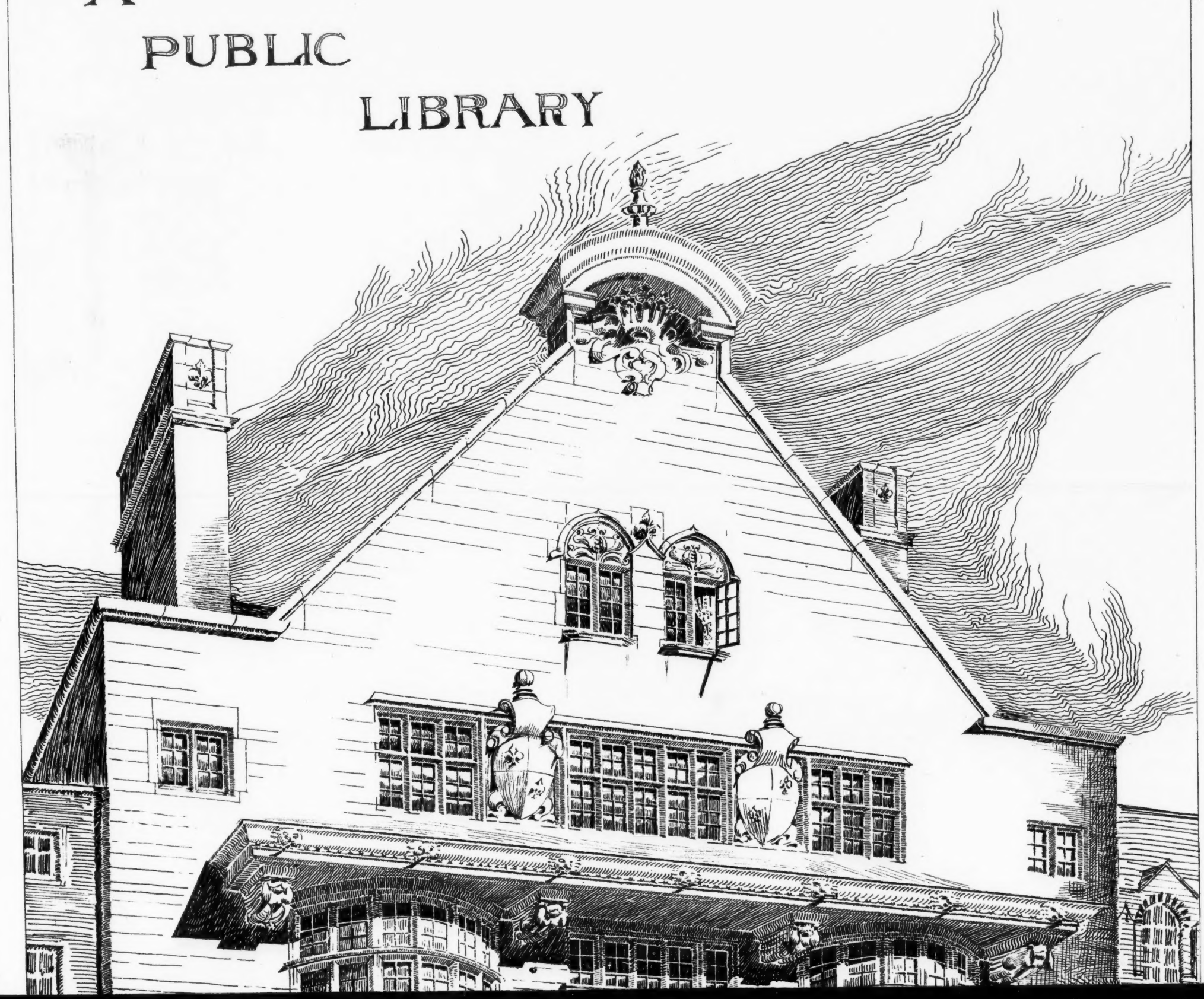


PHOTO-LITHO. SPRAGUE & Co 4 & 5 EAST HARDING STREET FETTER LANE E.C.

DOMINION HOUSE, FENCHURCH STREET, E.C.—Mr. Delissa Joseph, F.R.I.B.A., Architect

PHOTO-LITHO. SPRAGUE & Co 4 & 5 EAST HARDING STREET FETTER LANE E.C.

WEST INDIA HOUSE, LEADENHALL STREET, E.C.—Mr. Delissa Joseph, F.R.I.B.A., Architect.